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WOODUAL

WOODUAL

Open study and analysis on professional qualifications and learning systems in the wood sector in Europe

INTELLECTUAL OUTPUT 2

INDEX

1. Introduction

The project aims at proposing an integrate and complete strategy for improving youth employability and a better school-to-work-transition. In particular, the project will foster the collaboration between VET institutions and employers in the wood and furniture sector, contributing to adapt curriculum and qualification profiles and proposing and testing a cooperation framework between enterprises/employers and VET institutions to define integrated transnational dual learning models. Thanks to activities and outputs carried out during the project life cycle the chosen priorities will be reached, improving the collaboration between different stakeholders involved in training process and updating curricula with new basic and transversals skills to be developed during dual learning mobility experiences abroad (especially technological and entrepreneurial skills) Thus making students and young workers more skilled and suitable for the wood and furniture labour market.

This document, as part of IO2 *"Open study and analysis on professional qualifications and learning systems in the wood sector",* does provide the main conclusions derived from the comparative analysis of the Country Reports delivered by the partners in the frame of the WOODUAL project.

Along with what stated in the proposal, the WOODUAL project foresees the strong collaboration between VET institutions and wood enterprises and companies. The scope of this collaboration is to understand the current situation and future opportunities of young students and workers in the wood and furniture sector. The work of the Partners involved in the present output is to highlight the point of view of the VET providers and trainers, with three main goals:

1. Description of 2 job profiles: Wood Treaters (ESCO 7521) and Cabinet Makers (ESCO 7522) and related Trade Workers – working Machine Tool Setters and Operators (ESCO 7523). In the following Report, we will start from the European general description, and then compare the profiles in several countries (Italy, Belgium, Spain, Romania, Austria, Greece) to identify core elements and competencies among countries.
2. Identify key elements and patterns of the VET systems in Europe, including work-based learning and in-companies training, to understand whether dual learning may be a tool for the improvement of VET, and for a better integration between training and field work

- *Is training matching market needs? May Dual Learning help to reduce the mismatch between demand and supply in the wood sector?*

3. Identify common skills and qualifications, as well as gaps in the learning system - *Are profiles up-to-date?* - in order to draw Recommendations for the VET providers. Validation and certification of skills may be a barrier to transnational mobility, therefore it is important to document the acquisition of competences as well as their recognition beyond national borders.

It is obviously very difficult to define a unique occupational profile for Europe, and even for each European nation, due to multiple different descriptions related to regional peculiarities within each country. Even more it will be difficult task to define a common evaluation framework, in order to foster transnational mobility within a European unique dual pattern of training and working.

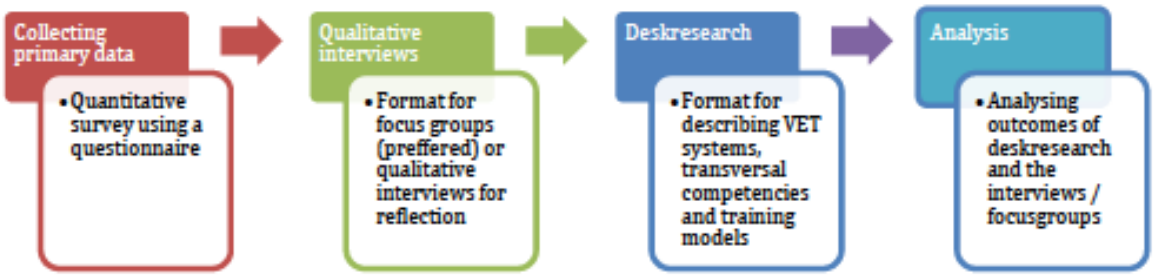
As above emphasized, WOODUAL project aims at setting up a sustainable transnational model, overcoming occasional training actions promoted by single organizations, to guarantee a joint effort among companies and enterprises, VET provides, social parties, trainees in the wood sector. This can be done understanding how the existing profiles can be changed along with companies' needs and VET opportunities. The last part of the Report will indeed delineate Recommendations to Decision and Policy Makers, to improve the training system through a dual approach and reduce the gap between training and actual wood work sector demands.

2. Research Methodology

The rationale which underpins the work in I.O.2 is to collect and organize information concerning the SUPPLY of training in the wood and furniture sector, with a focus on qualifications of "*wood treater*", "*cabinet maker*" and woodworking machine setter and operator. In the project proposal Partners had planned a phase of research in some of the countries involved in the project (Italy, Belgium, Spain, Romania, Austria, Greece), aiming at defining the context in which learning takes place, understanding which qualifications are attributed to each job profile, the extent to which profiles are up-to-date, how these qualifications are assessed, and finally point out the skill gaps between demand and supply. The works aims ultimately at defining the key common attributes for each job profile across Europe, allowing to point out quantitative and qualitative gaps in the provision, as well as the potential of dual learning and international mobility to help matching the identified gaps.

Research Approach

The starting point was assuming that each Partner involved would have access to official information regarding the provision of training for the sector in their country (which qualifications are offered, by which training organisations, where, the type of learning units, the didactical and organizational aspects, for exemple if the learning should take place only in the classroom or through dual learning, etc.). All Partners involved organized a Focus Group session involving five to ten training organisations (and other relevant stakeholders) in their country, during which it was possible to ask more qualitative information on the degree of success of existing qualifications, their evolution and the possible challenges. Sessions were scheduled for about 2 hours and a shared open questionnaire was used to allow a cross-country analysis of similar data.



Structure of the Focus Group with training providers (questions to collect information)

Part I: Engagement Questions

1. Please describe the current situation regarding VET provision in the wood and furniture industry (e.g. adequate, insufficient, obsolete, too concentrated, too traditional, not really addressing the new developments, formal and non formal learning, who are the providers? etc.)
2. What are the major trends in the provision? (e.g. use of ICT, dual learning, provision from technology providers, introduction of new competences, development of horizontal skills, etc.)

Part II: Exploration Questions

1. How is the linking between VET provision in the wood and furniture industry and the labour market? Please focus on issues like employment success of the existing qualifications, actual employment of qualified students, feedback from employers, studies on kind of employment achieved, etc.)
2. Which stakeholders are mainly involved in the governance of the training provision? Please describe the roles of the relevant stakeholders (VET providers – schools, social partners, Ministries, accreditation bodies, labour unions?
3. Which mechanisms do you apply for the diagnosis / identification of the needed knowledge, skills and competences of the labour market? Please refer also to the per-

ceived supply gaps, the existing quality gaps and the role of dual apprenticeship system or other related form of work based learning

4. In particular, are there any competences missing from the existing provision of training related to the three core professionals that the project is addressing? Can they be developed in a dual learning model?

Part III: Exit questions

1. How do you see international mobility as a tool for enhancing qualifications in the wood and furniture sector? What are the benefits and difficulties associated with international mobility?
2. Is there anything else you would like to say on VET provision in the wood and furniture sector?

Partners were asked to collect the feedback and the experiences from key actors of the training process (mainly VET Providers), in charge of developing and offering which develop and offer training activities, including those on technology and soft skills, both through dual learning system and after the conclusion of formal education. This part was meant to integrate the first one with practical and real cases, coming from the experience of the VET providers at European level.

The original idea was that each National Report should include it was originally assumed that:

1. Facts and figures of the training supply in the country (structure of qualifications, geographic distribution, number of students, courses, training centres, involved stakeholders, etc)
2. Trends in the provision of training, perceived quality of provision, employment rates
3. Perceived quantitative and qualitative challenges
4. The role attributed to dual learning (apprenticeship, alternance training, etc.)
5. Skills mismatch - identification of labour market needs and development of curricula
6. Benefits and difficulties associated to international mobility

Main recommendations collected from training providers and relevant stakeholders.

Reporting in the current document

The I.O.2 Report is a compendium of the knowledge and facts collected by Partners during this phase of research. Indeed, this document intends to present the core elements shared in the different countries (and the main differences) related to job profiles, training supply, qualification of competences, the role of apprenticeship and dual learning, employment rates, etc.

In addition, a section is dedicated to the benefits and challenges of international mobility, and consequently a set of recommendations from VET providers and relevant stakeholders is presented.

3. Description of Job Profiles

The issues regarding Job design and the degree of task complexity are to be taken into consideration as strategic points for the organisations. One of the most challenging questions for managers is to define a job description: specifying the tasks assigned to a given job, the authority and discretion granted to employees performing such jobs, and the extent to which such jobs can influence the behaviour and motivation of workers (CEDEFOP). Indeed, such definitions also deeply shape the range of competences that need to be acquired by VET trainees.

In the following section/, we will shortly introduce the wood and furniture sector in Europe, as referred in the Report carried out by EFBWW, CEI-Bois, UEA, EFIC and HMC (*Foster VET mobility, increased mobility in vocational education and training in the European and furniture woodworking sector*) and describe how the job profiles selected for the WOODUAL analysis are represented in Europe. This will be our background reference, in order to understand how VET providers interpret the referred skills and competences differently across Europe.

The sector

The furniture and woodworking sectors encompass a wide range of professions. The European wood and furniture sector comprised 291.600 enterprises in the EU-28 in 2013, with a total of 1.940.000 employed persons. The analysis of the structural business statistics points out that the sector appears to be turning the corner after many years of low and uneven growth. The economic recovery started in 2013 is forecast to continue. Innovations in the sector concern, among others, new machinery, the use of new combinations of existing materials and the updating of work organization according to market needs.

All these innovations have a direct impact on the skills required in different professions. A highly qualified workforce, able to adopt and integrate new skills and competences into their traditional work processes, capable of realizing new combinations of materials in an intelligent (and sustainable/profitable) way intelligent use of the possibility of new combinations, is

vital for a competitive woodworking sector, competing on an a market which is increasingly extending/developing at international level.

In this respect, the role of training institutes is essential since all these changes also require modifications regarding courses, training material, etc. Additionally, the mutual understanding and also a closer cooperation between training systems from different countries are key factors which are inclreasingly important for the unfolding of a European labour market at sectorial level. A better understanding of the framework and conditions of VET could serve as platform for the further developing of of joint activities in the whole area of mobility action.

Job Profiles

As starting point for the Woodual analysis, here we present a European profile for the 2 professions we analyze in the Report, according to the ESCO classification (*European Skills, Competencies, Occupation Taxonomy,* as proposed by the European Commission in 2013).

ESCO 7521 - WOOD TREATERS

7521 Wood Treaters

Wood treaters season, preserve and treat wood and lumber manually or using wood treatment equipment such as kilns and tanks.

Tasks include –

(a) operating and tending kilns, treating tanks and other equipment to dry lumber, prepare and season wood and other wood products, and to impregnate wood products with preservatives;
(b) monitoring equipment operation, gauges and panel lights in order to detect deviations from standards and to ensure that processes are operating according to specifications;
(c) operating valves to admit treating solution into treatment vessels, maintain specified heat, vacuum and hydraulic pressure and levels of solution during each phase of the treatment cycle;
(d) activating vacuum and hydraulic pressure pumps that remove air and steam from retorts and force treating solution into pores of wood to accelerate the treatment process;
(e) assisting in maintaining processing equipment and machines as required;
(f) cleaning, lubricating and adjusting equipment;
(g) transporting materials and products to and from work areas manually or using carts, handtrucks or hoists;
(h) completing and maintaining production reports.

Examples of the occupations classified here:

- Dry kiln operator
- Lumber kiln operator
- Timber treating tank operator
- Veneer dryer tender
- Wood seasoner
- Wood treater

Some related occupations classified elsewhere:

- Wood processing plant operator – 8172

ESCO 7522 - CABINET-MAKERS AND RELATED WORKERS

7522 Cabinet-makers and Related Workers

Cabinet-makers and related workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialized hand tools.

Tasks include –

(a) operating woodworking machines such as power saws, jointers, mortisers and shapers, and using hand tools to cut, shape and form parts and components;
(b) studying plans, verifying dimensions of articles to be made, or preparing specifications and checking the quality and fit of pieces in order to ensure adherence to specifications;
(c) trimming joints and fitting parts and subassemblies together to form complete units using glue and clamps, and reinforcing joints using nails, screws or other fasteners;
(d) making, restyling and repairing various wooden articles such as cabinets, furniture, vehicles, scale models, sports equipment and other parts or products;
(e) decorating furniture and fixtures by inlaying wood or applying veneer and carving designs;
(f) finishing surfaces of wooden articles or furniture.

Examples of the occupations classified here:

- Cabinet-maker
- Cartwright
- Furniture cabinet-maker
- Wheelwright
- Wood patternmaker

Some related occupations classified elsewhere:

- Carpenters and joiners – 7115
- Wood and related products assemblers – 8219

Furthermore, referring to the research conducted by the Consortium of the Bolster Up project in 7 European countries (Belgium, Bulgaria, Denmark, Germany, Netherlands, Poland and Romania), the study conducted on the profiles of pointed out that both the cabinet maker and the wood mechanic work as skilled workers in different type of enterprises, the large and medium sized ones operating in the furniture industry as well as the smaller, more craft-based, ones.

The "*cabinet maker*" works under the supervision of the team leader/manager and has a high level of responsibility for the quality of his/her own work and the work of co-workers.

A skilled "*cabinet maker*" is able to deal with the following aspects of knowledge, skills and competencies:

Unit 1: Preparation of the production of furniture and parts of furniture

Knowledge - knows	Skills – is able to	Competence – is competent to
• acceptance standards • technical drawings, applied mathematics • historical styles • technical regulations • cutting and sharpening techniques • computerized equipment • fittings	• assist in the implementation of quality assurance methods • read technical drawings • select fittings	• act competently within the production system (combine knowledge, skills and professional attitude in everyday work) • understand the logistic process in the plant • work in a way that respects the interests of co-workers and colleagues

Unit 2: Production of furniture and parts of furniture

Knowledge - knows	Skills – is able to	Competence – is competent to
• construction of furniture • joining techniques • ergonomic principles and measurements • different basic materials, wood species • manual tools • woodworking machines, basic maintenance • automated machines, basic maintenance • computerized equipment • measuring methods and tools • wood protection • coatings and techniques to apply • health and safety regulations, personal protection • documentation procedures	• use and carry out basic maintenance of tools and equipment • use and carry out basic maintenance of machines • take measurements • produce furniture parts and furniture • prepare work pieces before coating • apply fluid and solid coatings with manual tools • use automated equipment • use computerized equipment • mount fittings	• control quality of own work • ensure accuracy and reliability • work in a cost and time-effective way • use materials and machines within the whole process efficiently and effectively • take on responsibility for compliance with health and safety regulations

Unit 3: Installing of furniture

Knowledge - knows	Skills – is able to	Competence – is competent to
• mounting and assembly techniques • different types of auxiliary material and its properties and handling • documentation procedures	• combine parts of furniture to a complete furniture • combine different pieces of furniture into an ensemble or to a system	• judge work results, control work process

ESCO 7523 - WOODWORKING MACHINE TOOL SETTERS AND OPERATORS

7523 Woodworking Machine Tool Setters and Operators

Woodworking machine tool setters and operators set-up, operate and monitor automatic or semi-automatic woodworking machines such as precision sawing, shaping, planing, boring, turning and woodcarving machines to fabricate or repair wooden parts for furniture, fixtures and other wooden products.

Tasks include –

(a) setting up, programming, operating and monitoring several types of woodworking machines for sawing, shaping, boring, drilling, planing, pressing, turning, sanding or carving to fabricate or repair wooden parts for furniture, fixtures and other wooden products;
(b) operating preset special-purpose woodworking machines to fabricate wooden products such as coat hangers, mop handles, clothespins and other products;
(c) selecting knives, saws, blades, cutter heads, cams, bits or belts according to work piece, machine functions and product specifications;
(d) installing and adjusting blades, cutter heads, boring-bits and sanding-belts, and using hand tools and rules;
(e) setting and adjusting various kinds of woodworking machines for operation by others;
(f) reading and interpreting specifications or following verbal instructions.

Examples of the occupations classified here:

- Carving machine operator (wood)
- Furniture production machine operator
- Precision woodworking sawyer
- Wood products machine operator
- Wood turner
- Woodworking lathe operator
- Woodworking machine setter
- Woodworking machine setter-operator
- Woodworking machine set-up operator

Some related occupations classified elsewhere:

- Wood and related products assemblers – 8219

4. Learning outcomes and learned pedagogy centred

The analysis of country policies and approaches stressed that countries are using outcomes-based approaches, often expressed as competences.

At European level, launching the European qualifications framework (EQF) and the European credit system for vocational education and training (ECVET) has firmly put learning outcomes on the political agenda. At national level the rapid development of national qualifications frameworks (NQF) points to the same direction.

"The table below shows some headline comparisons in how competences are categorised by different models and different countries. To place this comparative table in an international framework that is intrinsically based on learning outcomes encompassing all forms of learning, we have chosen to use the Unesco four pillars of learning: learning to know; learning to do; learning to live together; and learning to be". [1]

Table 5. **Some categories used for describing learning outcomes**

Country/model	Learning to know	Learning to do	Learning to live together	Learning to be
France	*Savoir*	*Savoir faire*		*Savoir être*
France (*socle commun*)	*Connaissances*	*Capacités*	*Attitude*	*Attitude*
Ireland	Knowledge (breadth and kind)	Know-how and skill (range and selectivity)		Competence (context, role, learning to learn and insight)
Malta (Bloom's taxonomy)	Knowledge	Skills		Attitudes
Portugal (secondary education)	*Competências cognitivas*	*Competências funcionais*	*Competências sociais*	*Competências sociais*
Cyprus	Cognitive (Proficiency)			Affective, transfer
Krueger, Ford and Salas	Cognitive	Skill-based		Affective
Tuning project	Independent	Interpersonal		Systemic
EQF	Knowledge	Skills		Competences
EU key competences	Knowledge	Skills		Attitudes

[1] The shift to learning outcomes. Policies and practices in Europe, Cedefop 2009

It is clear that countries define and operationalise the ideas of learning outcomes and competences differently.

The Cedefop report [2] suggested three ways of developing a learning outcomes scheme, with many countries using a combination. These are:

1) using research or theory to specify the categories or item units of learning outcomes, such as the Bloom Taxonomy;
2) using a process of negotiation, such as a high level commission or social partnership approach;
3) borrowing a formula, such as the EQF formulation of knowledge, skills and competences at eight reference levels.

In many cases, the derivation will be a mixture of these types.

Several countries are currently using the Bloom taxonomy to define the Learning Outcome, but only Malta and Slovenia mentioned it explicitly. Bloom's taxonomy, probably the most widely known scheme for categorising cognitive, emotive and psychomotor skills – sometimes referred to as knowledge, attitudes and skills. – is often used in teacher training.

Table 6. **Bloom's taxonomy of outcomes**

COGNITIVE SKILLS	EMOTIVE SKILLS	PSYCHOMOTOR SKILLS
Evaluation Synthesis Analysis Application Comprehension Recall	Internalising values Organising and prioritising Valuing Active participation Awareness and attention	Origination Adaptation Complex overt response Mechanism Guided response Set response Perception

The analysis of country reports highlighted that learning outcomes are generally speaking well established within written curricula across most European countries. All countries involved in the project provided the Supplement certificate for both the profiles identified.

At the same time, the adoption of Dual Learning and WBL in VET emphasized that there is greater policy interest in pedagogical innovation, particularly, but not limited to, learner-centred approaches, and a calls for further research on the factors that affect them and the impact they have on learners.

Considering their function, the table below well provides a clear picture of the difference of learning outcomes in relation to their function.

[2] The shift to learning outcomes-Policies and practices in Europe. 2009

Table 15. **Learning outcomes according to their function**

Learning outcomes as reference level descriptors	Learning outcomes as a vehicle for quality assurance
Learning outcomes as a tool for relating theoretical and practical learning	Learning outcomes to link learners' cognitive, skills and affective learning
Learning outcomes in the formulation of lifelong learning policies and as a lever for reform	Learning outcomes for legibility or transparency of learning activities and qualifications

Generally speaking, two observations can be made. First, learning outcomes for general education are increasingly becoming embedded in the national approach to education; this is a recent development. Second, the same outcomes learning approaches may not be suitable for all types of learning.

In 2008, the introduction of the European qualifications framework brought significant reform with the introduction of learning outcome approaches to the design of VET provision. During tha same year, the Council recommended "curricula should be used as a tool to encourage more learner-centred approaches in education and training" (Council of European Union, 2008).

In Dual Learning and WBL, an effective personalised learning plan is at the heart of a quality learning experience and is used as a planning tool that sets out the overall learning goals, learning outcomes and concrete learning objectives of a programme that learner will follow. The learning plan should clearly state how the learning objectives will be achieved, whilst recognising that objectives may need to be modified as the learning plan unfolds.

The format and content of the personalised learning plan should typically include as dual learning methodology already details of:

1) Skills, knowledge and competences required and the timescale over which the learner will have achieved this;
2) Training the learner is to receive, where it is delivered and how it is scheduled, who is delivering it and what support is being provided;
3) Methods that will be used to deliver training (including on- and off-the-job training);
4) How on- and off-the-job training will be co-ordinated;
5) The learner's assessment and review arrangements.

To support partners organisations in WOODual, companies, schools and VET providers in drawing up personalised learning plans standardised templates, guidance as well as completed examples will be made available.

5. The Training Supply

Over the last years the European Union has started paying more and more attention to the area of Vocational Education and Training (VET). With the European Qualification Framework (EQF) and the European Credit system for Vocational Education and Training (ECVET), two tools have been developed which will also influence the further development of VET systems at national level. Furthermore, the EU 2020 strategy pays much attention to various factors such as the fostering of international mobility, the focusing on emerging skills for future jobs and the building up of a qualified workforce to match the needs of the companies. Especially the flagship initiative "Youth on the move" [COM (2010)477] is promoting mobility of young people and is proposing a series of concrete actions to face the mismatching of skills in relation to the market newest developments. (Report drafted by EFBWW, CEI-Bois, UEA, EFIC and HMC - *Foster VET mobility, increased mobility in vocational education and training in the European and furniture woodworking sector*).

The Report above mentioned, comparing VET systems in 9 countries, found out that the national systems of VET are still widely differing from each other and that it is not an easy to compare them, neither is it easy to understand the respective frameworks, conditions and practices. That is why, WOODUAL Partners decided to involve different actors and stakeholders in the project, to have a look on a taste of the different connotations of the respective national systems - cultural aspects, the concept of professions, learning methods, the relation between theoretical and practical instructions, etc. The differences have to be considered when planning transnational mobility actions or, even more, when trying to compare qualifications, reached after finishing a VET training pattern or apprenticeship after finishing the dual learning transnational experience

Overview of the National VET Systems

Referring to:

- the results of the Report drafted by EFBWW, CEI-Bois, UEA, EFIC and HMC - *Foster VET mobility, increased mobility in vocational education and training in the European and furniture woodworking sector;*
- the results of the TRAINVET4JOBS Project - *Supporting the role of VET professionals to improve the trainee's employability*;
- the results of the WOODUAL Partners desk research and focus groups,

this report presents the main characteristics of the VET systems in Belgium, Italy, Spain, Austria, Romania and Greece. By working on awareness and on self-consciousness of VET trainers, in a perspective of mutual recognition of diversities and differences, is the basis for the implementation of a common framework for transnational dual learning. In addition, a better understanding of the Vocational Education and Training in an international perspective helps to improve the system in terms of matching demand and supply across nations.

ITALY	SPAIN	GREECE	ROMANIA	AUSTRIA	BELGIUM
The State is no longer the sole actor of the system, enhancing the value of the autonomy of Local Authorities (Municipalities, Provinces, Metropolitan Areas, Regions) and schools. The Italian education and training system ensures each individual the right to education and training for twelve years, or at least until the students obtain an educational qualification by the age of 18. The vocational education and training system, alternative to the 'licei' system, has a duration of at least 4 years. The certificates and qualifications obtained at the end of the four years allow students to take the State exam, and is also valid for access to universities. Apprenticeship is a mixed contract. Besides the actual employment, the enterprise must provide the young people with the training necessary for them to become skilled workers.	Spain has introduced important advances to change its teaching models and learning concept from a traditional into a competence-based model, but improvement in the implementation process (from the practical point of view) is still needed. The Spanish National Qualifications and Vocational Training System offers currently two different approaches: one from the Education System (what we have called "official regulatory frame") and the other from National Employment System. VET offered in the education system is primarily oriented towards IVET and has deep roots and tradition among the youth population after Secondary Compulsory Education. On the other hand, VET in the National Employment System is aimed at a more adult population either employed or unemployed, and is considered CVET.	Vocational Education and Training (VET) in Greece suffers at both the institutional and regulative level, as well as at the level of society's attitudes towards it, entangled in a vicious circle. Despite the well documented fact, according to which VET is providing better labour market inclusion opportunities, it is still looked upon as a last resort for young people and adults alike, severely affecting the efforts of the Greek state to promote VET at all levels. According to legislation and recent reforms in the regulation of the Greek VET system, structures at the secondary education level (initial vocational training) are referred to as 'formal VET', while most structures in continuing, post-secondary vocational education (continuing vocational training) are referred to as 'non formal education', meaning that they don't belong to the formal education system of the country.	Lifelong learning (IVET) is guaranteed by law and it includes: early education has as purpose the acquisition of knowledge, abilities and general know-how; the development of significant abilities from a personal, civic or occupational point of view (VET). According to the national law of education, Vocational training takes between 6 months and 2 years. It is a part of the high Technological school and vocational education system, and is organized to acquire qualifications from the National Qualifications Registry, taking into account the demand on the labour market and the regional, county and local strategies of vocational training. The graduates acquire a qualification certificate in accordance with EUROPASS. The social partners have a significant role in the lifelong training system.	At the upper secondary level, the Austrian education system is characterized by a well developed and differentiated VET system, which consists of full-time VET schools (schools for intermediate vocational education [BMS] and colleges for higher vocational education [BHS]) and dual training (apprenticeships). Around 80% of every age group in the tenth school year opt for a VET program, with about half attending a school and half an apprenticeship (cf. The Austrian social partners). Basically, apprenticeship training meets with wide acceptance in all economic sectors, particularly in the crafts and trades sector, but also in wholesale and retail and the tourism industry. The importance of apprenticeship training can be seen in particular by the fact that almost 40% of the Austrian workforce boast an apprenticeship diploma as their highest educational attainment (cf. AK Wien). In recent decades, apprenticeship training has become more and more popular due to the educational expansion.	Belgium is a federal monarchy divided into three territorial regions: Flanders, Wallonia and Brussels. The population is divided into three linguistic communities (Flemish BEFL, German BEDG and French BEFR). This segmentation directly affects Belgian VET system. In fact, it has had a different development in each of these regions. According to the European definition of qualification, the Belgian VET system includes: - The secondary compulsory education with the technical and vocational programs (full-time and part-time); - Adult education; - Higher education with vocational bachelor programs; - Apprenticeship and entrepreneurial training; - Vocational training for adults, jobseekers, worker and students, organized by the public employment offices.

ITALY	SPAIN	GREECE	ROMANIA	AUSTRIA	BELGIUM

The comparative analysis of the reports stressed the need to provide a clear regulatory framework for dual learning as well as for Worked based Learning.

Generally speaking, Apprenticeships and other forms of work-based learning are seen as having particular advantages as a learning method in different countries. They can provide young people and adults with the job-specific and generic skills employers need and so help to smooth transition from school or other learning to work. Given that apprenticeships systems also strengthen cooperation between governments, social partners, employers and training institutions, it is unsurprising that their revival has become a worldwide trend.

Apprenticeship-type programs exist in almost all countries. But only 27% of VET students were in vocational programs combining school and enterprise-based learning, where 25% or more of the curriculum takes place outside the school environment.[3]

Learners enrolled in "alternance" or apprenticeship training are usually trained through a mixed form of training, both in school and in the company, for this reason there is a need for a specific regulatory framework that clarifies the responsibilities, rights and obligations of each party. It should specify the status of the learner, the remuneration arrangements and other benefits (if applicable), together with the obligations of the employer, the learner and the training centre. The contractual arrangements between the learner, the employer and the VET provider (if necessary) also need to be clearly defined. Written agreements protect all those involved from abuse or damage.

The regulatory framework concerns not only the "micro-level" relationships between the learner, the workplace and the VET provider, but also needs to set a top-level frame including responsibilities for:

- developing qualification standards or learning outcomes-based requirements
- developing curricula and learning plans
- quality assurance, evaluation and review
- public funding and its use.

In many countries dual learning and work-based learning WBL exist within a well-structured regulatory framework.

Apprenticeship models in Germany, Austria and Switzerland for example are highly structured supported and monitored by institutions with certain regulatory requirements contributing to the overall quality of the apprenticeship programme. In Germany for example, the Vocational Training Act (1969) defines the parameters within which firms and Chambers of Commerce may legitimately manage apprenticeship contracts. It also specifies the duration of apprentice training, the examinations to be carried out by the Chambers to test workplace learning and obliges employers to introduce apprentic-

[3] Developing apprenticeships, CEDEFOP Briefing Note, May 2014.

es which then undergo these tests. It also provides apprentices with the right to take legal action if the employer violates its obligations.
Chambers of Crafts, industry and commerce regularly monitor training firms and have the power to withdraw a firm's permission to train apprentices, if firms do not meet the required minimum standards.

In order to guarantee high quality dual learning and work based learning some countries (Italy, Belgium and Germany) provided Guidelines including clear and practical guidance in relation to different aspects of Dual Learning as well as Work Based Learning. For example, it provides guidance on what needs to be taken into account before adopting this model.
Guidelines provide to main actors clear information and regulations, preparing the learner and ensuring that the work environment and equipment are suitable.
The guidelines also emphasise the need to ensure that teachers/trainers/mentors are equipped with the necessary resources/support/time to perform their role. It also provides helpful information on how to match learners to a suitable place of work (by linking the competence profile the learner starts with to the school-career guidance / pathway to work guidance for example) and how to support learners (by specifying minimum follow-up criteria such as the number of visits tutors should pay for example). In addition, the guidelines provide helpful information in relation to assessment, feedback and follow up activities.
Several countries (Italy, Germany) closely involve social partners: involving national social partners is necessary to ensure that WBL remains responsive. Their involvement is essential for identifying future skills requirements so that the development of skills across the economy keeps pace with needs. Training/occupational standards need to be reviewed and updated regularly, and social partners are well positioned to make input to the process.
As stressed by the European Commission[4] ,
SMEs face particular challenges in engaging with Dual Learning and WBL, given their smaller workforces, limited resources and lack of familiarity with the regulatory and administrative framework. Their engagement can be encouraged by *intermediary organisations* offering expertise, information and help to support and motivate employers participating Dual and WB Learning paths.
Intermediary organisations can, for example, provide advice to SMEs on curricula or on how to organise different forms of WBL or Dual Learning and transnational mobility.

[4] WBL in Europe, Practices and Policy Pointers, June 2013

6. Perceived quantitative and qualitative challenges

It goes without saying that education and training systems need to be aligned better and more swiftly to labour market needs, and find a common framework for Europe in order to draw upon transnational mobility as a powerful resource. As above mentioned, the cooperation of the education and training bodies and employment sectors, social partners and third sector organisations is a key factor to ensure that vocational education and training (VET) gives people the opportunity to acquire a mix of skills that combines theory and practice, allowing them to perform a specific occupation, but also gives them the opportunity to progress and return to education and training to be able to upgrade and complement their skills. Collaboration and support structures are needed to help small and microenterprises engage in training.

From the focus group conducted in Italy, it emerged that another key factor for quality in the wood sector and furniture is the adoption of "*new pedagogical solutions including ICT and developing soft skills*". This is particular true for the Technical Institutes intended as "Knowledge industries" where we have to redesign and rethink the places of knowledge, with an alternation between school and external organizations (primarily enterprises) in which students and young people explore the operational problems. Therefore the training bodies need a new staff of teachers, in which the "*institutional teachers*" (with an adequate knowledge of applications) are integrated and working with the technicians of enterprises, describing the experience and allowing the contextualisation of learning, and researchers in the world University, which present the vision of the future, and then the real contexts in which the students, at the end of their cycle of study, will operate, with the need to use advanced knowledge. This concern is also shared by the Belgian and Spanish respondents, which consider (new) techniques and technologies due to be thought and integrated within the 'normal' curriculum. On the other hand, investing in performing machinery and up-to-date machinery is not possible neither sustainable for all schools, so that Dual learning becomes a possibility for these parts of the curriculum (such as, production and manufacturing techniques) that cannot be thought within the schools. But this needs a very strong collaboration between schools, teachers and the firms and needs to have a very strict follow-up to

guarantee the quality of the Dual Learning (parts). Maybe more regional inter-schools collaboration is another possible solution.

Another concern shared between Spain and Belgium is in terms of numbers. The Belgian analysis highlights that there is a very large number of students/learners in the woodworking education, versus woodworking and furniture sector that is declining since years. On the opposite, in Spain the craft activities have disappeared. The automation and the use of new technologies have changed the sector deeply. This professional family is one of the least popular in terms of the number of students enrolled (3.656 students during the 2013-14 course). And among this relatively low number of learners, the percentage of graduates looking for employment stays high (31%), being the unemployment in this qualification also very high (25%).

Another scenario emerges in Austria, where it is evident that there are clear connections between unemployment rates and the VET completed programmes. Only 3.5% of the workforce with a tertiary qualification was affected by unemployment in 2013, and people with a certificate from a college for higher vocational education had lower unemployment rate (4%) than youngsters with a certificate from academic secondary school (6,9%). In the European comparison, Austria boasts the second lowest youth unemployment rate within the EU (after Germany). The EU-28 average value was 21.9%. This comparatively low value is mainly due to the wide range of vocational programmes at the upper secondary level, which is well accepted by the young people with their different interests and talents. In addition, a large number of youth labour market policy programmes and projects exist, which are provided by the public sector. Indeed, apprenticeship training is largely demand-driven: young people apply directly to a company that offers an apprenticeship vacancy, and such places are offered in occupations that the company has identified as required for future operations and growth. As a result, apprenticeship training ensures a good match with future skills needs. In Austria, the challenge is that however, supply and demand do not always match. Not all young people find an apprenticeship post in an occupation they are interested in. On the other hand, there are companies that do not succeed in filling their vacant apprenticeship spots because there are not enough applicants. This may also depend on the fact that apprentices are often not willing to travel too far to their training company. In this regard, vo-

cational guidance and counseling could help, together with measures that can ease and facilitate mobility, within the country and (in line with the project idea) across borders.

From the Report of Greece, we learn that in the wood sector the challenges are interrelated. If it is to be generalized, it shall be integrated in three major categories; the VET (educational) system, the reform policies and the economic environment, that does not favour the development of the sector. There are some difficulties encountered for the wood sector occupations, labour and education:

- The geographical distance from the major European urban centres continues to be problematic, since until the completion of the roadway transport existing connections will continue to have some degree of inadequacy and insecurity, increasing the cost of transport.
- High fragmentation of production with small sized enterprises which show difficulties accessing capital and innovations.
- High labour costs (related to low labour costs in third countries: the Balkans, Turkey, China).
- Gap existing knowledge and skills of the workforce based on the desired level.
- Low protection design innovations and create copies on the market.
- Low indicator of direct investments in third countries for the reduction of production costs.

The situation in Romania shows an opposite trend: while it is clear that reform policies and the economic environment are key factors as in Greece, in Romania the social partners have a significant role in the lifelong training system. Based on the Tripartite Agreement (government – unions – employers' association) all vocational training activities are led by the National Qualifications Authority, with the ultimate scope of the improvement of the employees' qualifications and requalification. It is very clear that the revitalization of the economy was only possible thanks to the intensification of the physical efforts and the increase of the qualifications and vocational training (Report *Foster VET mobility, increased mobility in vocational education and training in the European and furniture woodworking sector).*

What emerged as a common element, and was clearly stated by Italian and Austrian respondents, was that the real challenge is to integrate the school-work alternance within pedagogical and professional frameworks. Training bodies are able to design learning contents, but the definition of VET learning outcomes need to be done in cooperation with enterprises and third social parties. In Austria, the system of VET and apprenticeship was progressively diversified (alongside "regular" apprenticeships, integrative/inclusive VET programmes were introduced) to better meet very heterogeneous skills. Indeed, the Greek research also pointed that the complexity of manufacturing results in the need for woodworker specialists to carry out more technical, maintenance and management functions. They will need creativity, analytical, work in a team, technological and knowledge of technological process skills. Therefore, the need for general skills, especially those of communication and negotiation and foreign languages will also increase, challenging "traditional" VET systems to open towards new qualifications and learning paths.

7. The role attributed to Dual Learning

Research has shown that while learning in the workplace via formal training is of value, just as important is learning taking place in non-formal and informal settings. Workers can develop skills while doing their work, especially in contexts where such learning is encouraged and made possible (CEDEFOP). Workers need to be engaged in the process or training provision or else training may lead to very little additional human capital (Foss and Lindenberg, 2013; Nyberg et al., 2014 - CEDEFOP p.88). From the above, it is clear that skill gaps in firms may be reduced by providing appropriate contexts for training and learning, where course design and implementation is a collaborative effort made by VET providers and firms, which play a critical role in preventing skill gaps in competitive job markets. In this Report, we presented

the current state of art of VET provision in Europe; now we want to understand whether there is space for a dual approach and how dual learning is perceived by VET trainers.
A positive example is instead the Austrian VET system. The VET sector plays a major role in the Austrian education landscape. This is shown, on the one hand by the high attractiveness of VET programmes for young people: about 80% of all pupils who have completed compulsory schooling opt for a VET path. On the other hand, it is shown by the diversity of pro-

grammes. A pronounced differentiation both in the school-based and in the dual VET sector ensures that every young person is able to optimally develop their strengths and talents. The success of the Austrian VET system is also reflected in the low youth unemployment rate and the international recognition of Austrian skilled workers" (Tritscher-Archan and Nowak, 2011).

Also in Belgium, dual learning is becoming more and more important. In Flanders and in Wallonia/Brussels there are new governmental initiatives to promote Dual Learning and to improve the quality of this learning pathway. Up until now, dual learning pathways were often for youngster that were 'nearly' school dropouts, so they did not reach a very high qualification. In addition, learners could not achieve a diploma, but only a certificate, with no possibility to access higher education. Innovation came from September 2016, when the Flemish government experimented a dual learning system, integrated in the full time school pathways,: learners have the possibility to choose full time at school or a dual learning approach, with the same outcomes and certification/diplomas. However, this new system seems in contradiction with the Belgian context of (very) small enterprises, being very difficult (and therefore rare) for companies working in the wood sector to welcome many youngsters. This system seems to be more adaptable to big and medium size enterprises (> 100 personnel) which are indeed not so common. Furthermore it looks like the schools are more interested in more workplace based (short) training periods, than a real dual learning system. They are concerned that the current 'large' woodworking education will be 'limited' to only a very small professional qualification or profile, and this would be negative on the employment rates afterwards.

In other countries, such as Italy and Greece, dual learning and apprenticeship are believed to be an answer to main problems of the wood and furniture sector, like the education and training, the competitiveness of SME, young people's relationship with work, the lack of culture of work, the guidance and accompaniment to the work, etc. Vocational education and training that is more closely aligned to the requirements of the labour market is viewed as a vehicle for increasing the employability of young people, as it happens in several countries such as Germany, Austria and the Netherlands. However, the idea of implementing a dual learning system still stays on paper, both in Italy and in Greece. In the former, apprenticeship is more common, and has been recently regulated into three types: (a) for attaining professional qualifications and diplomas, the upper secondary school diploma and the advanced

technical specialization certificate (art. 43 of Legislative Decree No. 81/2015); (b) Apprenticeships for attaining professional skills (art. 44 of Legislative Decree No. 81/2015); (c) Apprenticeships for higher training and research (art. 45 of Legislative Decree No. 81/2015). In the latter, most common is apprenticeship, defined as alternating training combining school teaching and the workplace. The apprentice is contractually related to the employer and has the right of wages receiving. The employer assumes responsibility for providing the trainee with training leading to a specific occupation.

Therefore, as regards the young , the dual system is believed to be the right occasion for:

- familiarizing with the entrepreneurial world via a real employment relationship;
- learn transversal, technical and operational skills in a context that is different from school and allows the contextualization of knowledge;
- facilitate and reduce the time for access to the labour market;
- gain income already during training;
- obtain a formal qualification identical to that of full-time path attendees, while working.

On the other hand, main benefits for enterprises could be:

- Training the young people according to their own needs;
- Cutting down on hiring costs;
- Acquiring new and updated skills (e.g.: computer science, languages, etc.) that are taught in school and that can benefit the company.

Evidence in Spain shows that dual training is attractive and motivating for youngsters, and that it contributes to reduce the early educational leave (26,5% of Spain, Eurostat 2011) and to promote employability (52,7% of Spain, Eurostat 2011).

In Spain, VET providers confirmed that the relationship with the companies in the labour market is very good and effective, and this is proven by the fact that many students are employed at the end of practices in company. And companies which experience combined training, often repeat the experience and with successful positive outcomes.

This would also confirm the expectations expressed by Italian and Greek respondents. However, In Italy the dual system is not yet codified and established like in other countries. The

two training models connected to work, apprenticeship and internship, although quite similar to a dual model, are not adequately linked to the curricula of the Education System and are often relegated to the Vocational system. Moreover, Italy is in a transitional phase after the adoption of the Law n 81/2015 which abolished the earlier laws and some hundreds of national contracts are now in a confused situation. Also, considering the cooperation between E&T organisations and Enterprises, we stress the lack of special agreement and protocols needed to launch the implementation phase as well as the lack of strategic partnership in training needs analysis.

In Greece, among others, a crucial challenge is to involve enterprises not only with the Apprenticeship system - and mainly through business associations, institutes, chambers and other social partners. But to involve companies from the beginning, meaning in the definition of the VET offer and in taking an active role by making proposals on qualifications, skills coverage and quality assessment.

Ineffective policies pursued in recent decades in the field of secondary vocational education, frequent changes and reforms and the lack of adequate public information about the possibilities of vocational education, are some of the factors responsible for the gradual obsolescence of VET providers, with negative consequences on economic growth and youth unemployment.

Dual learning might be the key factor to overcome:

1. the lack of good dialogue between the training and education bodies, and the employers and enterprises;
2. the difficulty in finding companies to hire all the young people potentially interested in apprenticeships;
3. the lack of commitment by the enterprises to support training, mainly in small-sized companies (but the Italian system, as well as the Belgian system, is composed by small-sized companies, >90%);
4. the lack of cooperation between trade unions, industrial associations and public authorities to ensure the feasibility of compliance with the quality standards in training and final assessment;

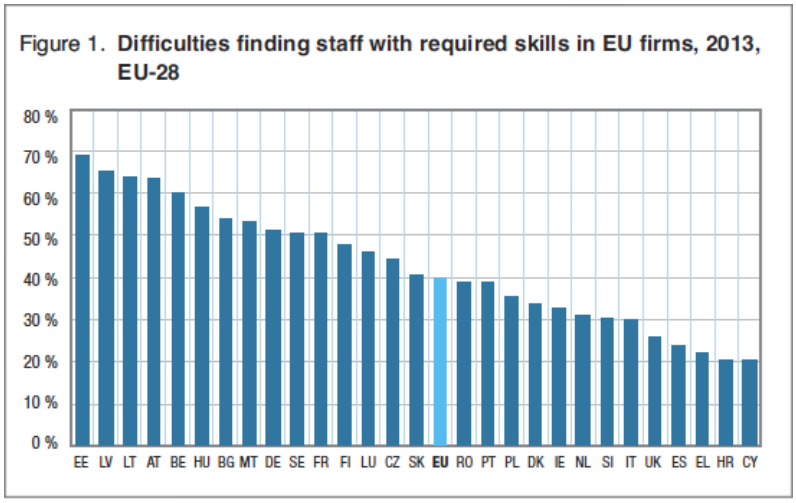
5. the lack of a more effective recognition of job training as university credits (which emerged as a challenging factor in Austria as well).

8. Skills mismatch - identification of labour market needs and development of curricula

As Europe struggles to exit from a protracted and costly economic crisis, four in 10 businesses in the European Union (EU) report difficulties finding staff with the right skills (CEDEFOP). Such vacancies seem to reflect skill shortages, which have adverse consequences for the productivity and competitiveness of European enterprises. It is therefore clear that Vocational Education and Training (VET) policies and impact need to be addressed to match employers needs. The question now is: why are employers faced with significant difficulties in recruitment at a time when the European workforce is the most highly qualified in its history? With the help of the CEDEFOP Report "*Skill shortages and gaps in European enterprises Striking a balance between vocational education and training and the labour market"* and the results of the analysis conducted by Partners of the Woodual project, we will try to answer this question.

The latest European company survey in spring 2013 (ECS-2013), found that four out of 10 (39%) firms in the EU had difficulties finding staff with the right skills (see figure below). Talent shortages and recruitment difficulties are particularly a concern for specific economic sector: hiring problems are widely reported by employers in manufacturing, such in the wood and furniture sector (CEDEFOP).

Respondents contacted for the purpose of this Report, have identified several factors that af-



fect the mismatch between market needs and training provided, and they are mostly shared throughout all Europe:

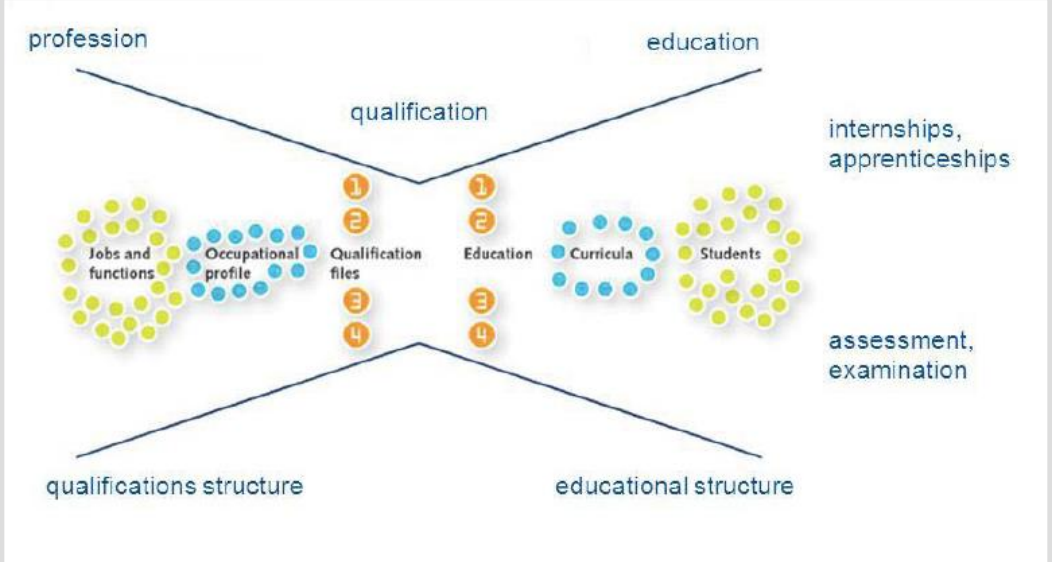
1. There is no shared methodology to determine the paths for training as related to market trends, so the Ministry of Education often decides on contents without consultations with the insiders
2. The process of changing is very slow
3. There is lack of effective dialogue between the training and education bodies, and the enterprises
4. Culture of labour versus culture of knowledge
5. Education providers do not have the incentives, and are not enough motivated towards changeThe lack of a system to identify skills needs and a process for upgrading programs and accreditation consequently
6. Lack of ensuring a closer involvement of employers, social parties and a greater use of private financing
7. Lack of regional public-private partnerships.

It goes without saying that cooperation between education and labour market is the key for the future. Good vocational education and training have a crucial role to play in meeting the many socio-economic, demographic, environmental and technological challenges facing Europe today and in the years ahead. Cooperation between education and the labour market, sufficient work placements and new opportunities for people with a distance to the labour market is of great importance for Europe and will improve the occupational mobility in Eu-

rope and helps achieving the EU2020 goals. The following ingredients are therefore important: a flexible national demand-driven and competency based qualifications structure, developed with up-to-date labour market as basis, via full consultation with employers and educational institutes, based on a structural labour market research and suited for guiding various people to the labour market; the responsibility of monitoring the availability and quality of work placement companies; a robust regional approach; coordinators addressing regional labour market issues on a joint and effective basis (Foster VET Mobility).

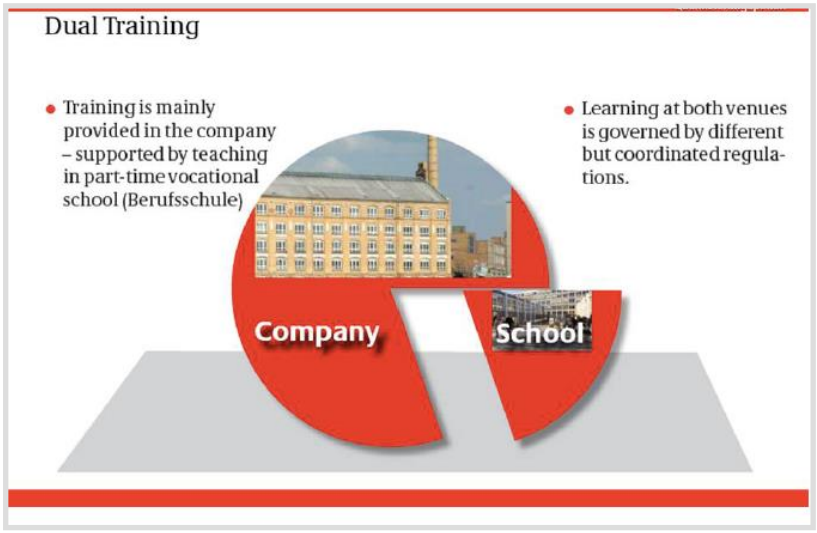
Positive examples come from the Dutch dual system, and the German system, as showed below. In the Nederlands, every qualification is developed in close co-operation with social partners in the branch. Social funds are used. In some cases, also higher education representatives are involved. The starting point is the definition of the occupational profile, which consequently leads to the definition of a qualification profile, and a quality assessment structure (VET) with the approval of the Ministry of Education. Lastly, curricula are defined based on job requirements and qualifications, and both apprenticeships and internships are related to the training path. Along with that, assessment and examination are developed.

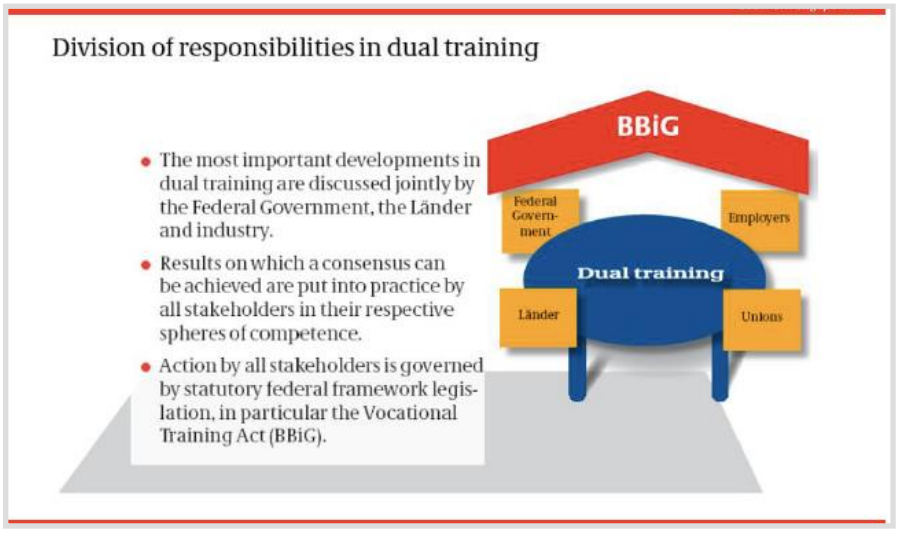
This is shown in the figures below.



Another positive example comes from Germany. Germany's two-track vocational training system is quite special internationally speaking. On completing school, approximately half of the young people in Germany move on to learning one of the 350 officially recognized vocations included in the Two-Track System. Training is generally financed by the companies, which pay the trainees/apprentices wages, while the government bears the costs of the vocational schools. Some 500.000 companies, the public sector and the free professions are busy training young people. Small and medium-sized businesses provide about 80% of all traineeships.

Thanks to the Two-Track System, in Germany the number of young people without a profession or traineeship is comparatively low, and is only 4.2 per cent of those in the 15-19 age bracket. This combination of theory and practical work guarantees that the craftsmen and skilled workers have excellent qualifications. Vocational training is also a launchpad for a career that can, via advanced training, lead to participants becoming master craftsmen and





craftswomen. Actors and their roles are explained by the figures below.

9. Benefits and difficulties associated to international mobility

The definition of mobility is the ability to move or be moved freely and easily. For the purpose of this study, we take into account international mobility of students and trainees across Europe. International mobility has existed for decades, as a means of circulating knowledge and promoting development. More recently, due to rapid economic changes and technologically intensive sectors, mobility as become a key factor for economic policy community and for sector growth. The ability of some countries to sustain fast growth in these sectors without being unduly limited by shortage of key workers, such as in the wood and furniture sector, is tightly related to immigration and transnational mobility, and to its impact on the labour market.

Focus group participants stressed the fact that the European and transnational dimension is a key factor also for the quality of the learning paths, as well as for the training provided to young people. The European dimension is becoming a critical element to understand the changing environment in which both training and work take place. The benefits of mobility for young people are really relevant, not only in terms of soft and language skills, but also in terms of competences acquired and employability.

International mobility brings along several benefits for young students and workers:

- Open-minded attitude
- Employability
- Independency
- Abilities to manage different locations
- Better recruitment in jobs with more responsibility
- Problem-solving skills

But it is also associated with certain difficulties and obstacles:

- Language skills requirement - in professional education, the foreign languages are such a short and limited part of the curriculum, that there is very often, if not always, a big problem with the knowledge and practical use of a foreign languages (or the other national language, such as for Belgium - French in Flanders and Dutch in Walloon Region and Brussels). Therefore, students/workers interested in international mobility, look at neighbouring countries where the language is not an issue any more. However, this means that

the innovation and cultural differences are so limited or nearly un-existing, that there is not always a real need for this international mobility, neither it produces clear benefits.

- Adaptation
- Culture differences
- Bad experiences
- Validation of qualifications and diplomas and leveling with EQF

For example, the participants to the Italian Focus Group agreed on the following recommendations:

1) Overcoming the occasional and bilateral collaborations such as twinning and exchanges and creating permanent instruments for the management of international mobility. Each country have to organise a "consortium" of main actors (Schools and Training Bodies, Universities, Companies, Local Bodies, Trade Unions). It is important to adopt technical and juridical tools to manage a permanent system of transnational mobility, overcoming the Erasmus+ project;
2) Each National (Territorial) Association or Consortium (composed by local network, not by single people) will mate with others, creating an "umbrella solution" to eliminate or minimize the administrative costs of the initiative;
3) Adopting a framework to evaluate the mobility and dual experiences, involving young people and old entrepreneurs, in order to promote the intergenerational learning. The storytelling approach is also a good technic suggested.

Wood sector in Europe is perceived as a very promising sector and that is in fact confirmed from the numbers; in France for example, more than 400.000 people work in the wood industry. On the other hand, international mobility is not a common practice, and learners either stay in the decentralized area where they are employed as craftsmen, or they transfer to the nearer area to learn the techniques of wood. Not to forget another relevant issue which is the cost of international mobility.

10. Recommendations collected from training providers and stakeholders

The CEDEFOP research concludes that to tackle the current and dynamic workforce skill gaps in Member States both individuals and organisations need to be closely involved in skill development and matching. Individuals need to have a positive attitude towards learning and to possess an appropriate set of core competences and motivations that will enable them to be flexible and adaptable in response to economic and organisational shocks. But, organisations have a critical role to play in preventing skill gaps. One of the key factors for implementing a positive change is fostering a learning climate in the workplace, with emphasis on the provision of support for learning opportunities to employees by management and among colleagues.

In other words, we can say that more collaboration between school networks, government, private employers and enterprises, sectoral partners and third parties is needed. The furniture sector requires training and education less centred on pedagogical issues and more focused on new technics, new technologies and innovation in woodworking and furniture making. Job profiles should be the basis to define qualifications, through a crisscross approach.

When interviewed, VET providers recommend:

- A dual system also for teachers, every year in their own country and every 3 years in other countries.
- To raise the level of qualification of the workers and to improve the management of companies.
- To renew the equipment in companies and in training centers, fostering local sectoral investments.
- To improve the image of the sector to be more attractive for youngsters.
- To increase the number of students raising incentives (i.e. mobility opportunities and employability); Vocational education is still considered as a *Plan B* in many countries, despite all efforts to promote it as an equal and valid alternative to general education, and despite research data show graduates to encounter less difficulty in finding employment.
- Apprenticeships and work-based learning that is no longer *do-it-yourself.* Often young people have a negative perception of apprenticeship opportunities, while the real ex-

perience in enterprise (immersion in the reality) usually has a positive impact in term of competencies and knowledge.

- Training needs analysis at regional and sectoral level, involving stakeholders on a permanent basis.
- To introduce new competences in the training, like horizontal skills, for students *and* teachers. It is essential to promote regular opportunities to train also teachers and trainers, both on contents and on pedagogical approaches.
- To change the mentality of small and medium companies, regarding dual learning and ICT tools.
- To strengthen participation of students on the long run, the number of student at the beginning of the programmes is higher in comparison to those who actually finish the academic year.
- Training must be designed to improve access of young students to the paths of technical education, vocational, educational and vocational training, as well as higher technical education at various levels; and access for adults already employed through continuous learning and inter-professional training.
- Sharing of experiences and good practices, and the dissemination of information and innovation.
- Reorganization of the curricula for the wood and furniture sector, and redesign professional profiles, including the necessary expertise according to market needs.
- Promoting the cooperation between pool of enterprises and poll of schools in order to accompany the life, development and the growth of the training of young people, in order to maximize the development of their human capital, their talents and abilities and also the purpose of updating the laboratory and ICT for wood and furnishing of schools and educational centres and training.
- Designing and testing training activities provided by vocational education institutions and/or by the regional vocational training centres, dedicated to language and cultural training, with reference to the countries with which it has greater respect in the wood-furniture industries.
- To take into account both "non formal and informal learning" while designing the curricula, being obviously relevant to identify, select and formalize the know-how that is formally and informally transmitted, also including the issues of intergenerational transmission of competencies.
- Promoting mobility between different education chains.

ANNEX 1

CERTIFICATE SUPPLEMENT OF JOB PROFILES

Greece

CERTIFICATE SUPPLEMENT

1. TITLE OF THE CERTIFICATE (EL) (1)
ΕΠΙΠΛΟΠΟΙΟΣ
(1) In the original language.

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) (1)
CABINET MAKER
This translation has no legal status.

3a. SKILLS PROFILE – Cabinet Maker (General)

The Licensed holder of this certificate:

KNOWLEDGES

1. Measurements - admeasurements (lengths - back, areas, volumes)
2. Industrial Design - The Design programs / PC-CAD
3. Machining centers for wood products (combined machinery, numerical control equipment - CNC, DNC, CAD / CAM, etc.)
4. Machinery maintenance
5. Quality furniture Control
6. English technical - sectoral terminology

SKILLS:

1. Understand and use written information
2. Critical Thinking
3. Decision-taking.
4. creativeness
5. Data analysis and conclusions
6. Orientation on results
7. Identify problems and needs
8. Methodical Approach
9. Inventiveness
10. Speed of reaction

ABILITIES:

1. Visual ability-Observation
2. Concluding thought
3. Ability to use tools
4. Ability to use the design / computer software (CAD)
5. Ability methods and process synthesis
6. Free drawn Capacity

3b. SKILLS PROFILE Specialization – Furniture Design Specialist (Specialization)

The Licensed holder of this certificate:

KNOWLEDGES

1. Classifies into categories kinds of wood for the furniture manufacturing based on physical maturity and the mechanical strength.
2. Lists with which the furniture manufactured materials and components and describes their properties and methods production.
3. Names if the machines and wood working tools, the products and the by-products.
4. Recognizes institutions and design through the linear and freehand and basic principles of composition, visual perception and aesthetics.
5. Recognizes the basic math and metric sizes which are necessary for calculations of surfaces, volumes, weight and other measures in relation to his specialty.
6. Identify the basic rules on ergonomics and anthropometry.
7. Recognizes rules in physics and in particular the forces exerted during manufacture and use of furniture.
8. Identifies tools and H / PC programs for data entry, simple word processing, finding information, the design etc.
9. First calls the terminology of whichever language you coming industry.
10. Distinguishes the main development periods in the history of furniture and furnishings recognizes representative from each period.

SKILLS:

1. Planning any kind of furniture and furniture systems taking into account the needs of ergonomics and anthropometry.
2. Designs original furniture proposals in accordance with the new trends of the age, the needs of the market, modern technology and new materials. It enjoys similar designs with floor plans, elevations, sections, axonometric and perspective.
3. He proposed several methods of manufacture of furniture and individual work related to the submitted plans.
4. Handle with precision tools and instruments used for the industrial design of furniture.
5. It collects and evaluates information from various sources (reports, web albums, etc.) and analyzing by analyzing the data in a creative way to design any furniture.
6. Prepares costing list with a detailed description of technical specifications of the work of each section and all the furniture.
7. Make quality control knowing furniture components and controlling the degree of security provided by this product.
8. Uses PC programs (CAD) to assist the work of the (two-dimensional design and three-dimensional illustration).

ABILITIES:

1. Follows production controller instructions in the performance of his duties, understands how to implement and ensure compliance with the deadlines set.Concluding thought
2. Undertakes independent furniture design and is responsible for the completion of its work.Ability to use the design / computer software (CAD)
3. Collaborates with people of other specialties, such as cabinet makers, carpenters, mosques, engineers, suppliers, technicians traditional arts, painters, decorators, architects, etc. for the realization of furniture.

4. RANGE OF OCCUPATIONS ACCESSIBLE / HOLDER OF THE CERTIFICATE (1)
The certificate holder of this certificate can be employed in Furniture, Woodworking plants or other players.
(1) If applicable.

5. OFFICIAL BASIS OF THE CERTIFICATE	
Name and status of the body awarding the certificate E.O.P.P.E.P. (National Qualification Certification Agency & Professional orientation) Ethnikis Antistaseos 41, PC 142 34 N. Ionia.	**Name and status of the national or local authority responsible for the validation or recognition of the certificate** YP.PO.PAI.TH. (Ministry of Culture, Education and Religious Affairs) A. Papandreou 37, Maroussi PC 151 80
(National or international) qualification Level 4 (Cabinet maker) Level 5 (Furniture Design Specialist)	**Grading scale / Pass requirements** a) successful completion of study in IEK and acquiring training certificate b) b) who have passed the theoretical part of the final exam (Rating scale from 1 to 20, base 10) c) c) success in the practical part of the final exam (Pass / fail)
Access to next level of education or training NO	**international agreements** NO
Legal basis Law 2009/1992 on Vocational Education and Training National System Law 4186/2013 on Restructuring Secondary Education and other provisions	

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING PISTOPOHTIKOU	
Total duration of the education / training leading to the certificate	4 semesters (by the law .4186/2013) 5 semesters (after the law 4186/2013)

Additional information

Entry Requirements: Certificate General or Vocational High School or equivalent.

Internship - Traineeship: Until the enactment of Law. 4186/2013: Internships is optional and lasts for one semester. After the passing of Law. 4186/2013: Practical training is compulsory and lasts from 1 semester to 1 year of study.

National Europass Centre:

E.O.P.P.E.P.

(National Qualification Certification Agency & Vocational Guidance)

National Resistance 41, 142 34, N. Ionia, Athens

Tel. (0030) 210 2709000, 210 2709110

http://europass.eoppep.gr, www.eoppep.gr

(*) Explanatory note

The purpose of this document is to complement the information provided by the certificate. It does not have any legal effect. The format of the description is based on resolution 93 / C 49/01 of 3 December 1992 on transparency of qualifications, Council Resolution 96 / C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613 / EC of the European Parliament and of the Council of 10 July 2001 on the mobility of students, persons undergoing training, volunteers, teachers and trainers. More information: http://europass.cedefop.eu.int

Greece

EUROPASS CERTIFICATE SUPPLEMENT

1. TITLE OF THE CERTIFICATE (EL) (1)
ΞΥΛΟΓΛΥΠΤΗΣ
(1) In the original language.

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) (1)
WOODCARVER
This translation has no legal status.

3. SKILLS PROFILE

The Licensed holder of this certificate:

KNOWLEDGES

1. Recognizes the basic wood species, their physical characteristics and describes its physical properties.
2. Lists the tools and devices needed for the wood carving process with handmade and mechanically.
3. Accurately describes the techniques and procedures necessary for the creation of a woodwork project (design, molding, assembling, sanding, painting, etc.).
4. Classifies types of wood carved into categories according to their use and describing their specific features (ecclesiastical furniture, investments, etc.).
5. Lists the instruments and materials needed for the free and linear design and describes the design and imprinting stages of projects intended for woodwork.
6. Recognizes the basic math and metric sizes, which are necessary for their surfaces, volumes calculations, weight and other measures in relation to the woodwork.
7. Distinguish the key periods of the history of art and describes the key features woodcuts works independently from the period are constructed.

SKILLS:

1. Sculpting projects woodcarving prominently embossed, linear perforated plated.
2. Selects appropriate types of wood for each event project and exploits their special characteristics, such as density, hardness, etc., to facilitate the carving, coloring and other treatments.
3. Handles with accuracy and security tools and carving machines, cutting and machining of wood.
4. Calculates and instructs the appropriate materials for a project.
5. Planning motifs original or traditional and reflect accurately on the wood surface intended for carving.
6. Assesses damage and follow the appropriate procedure for the maintenance and restoration of wooden sculptures.
7. Organizes workshop with ergonomics and safety.

ABILITIES:

1. Follow artistic curator or laboratory controller instructions, understands how to implement and comply with the deadlines set.
2. Undertakes independent woodcarvings and is responsible for the completion and the quality of his works.
3. Collaborates with people of other specialties, such as suppliers, designers, decorators, architects, etc. for project implementation.

4. RANGE OF OCCUPATIONS ACCESSIBLE / HOLDER OF THE CERTIFICATE (1)
The certificate holder of this certificate can be employed in Furniture, Woodworking plants or other players.
(1) If applicable.

5. OFFICIAL BASIS OF THE CERTIFICATE	
Name and status of the body awarding the certificate E.O.P.P.E.P. (National Qualification Certification Agency & Professional orientation) Ethnikis Antistaseos 41, PC 142 34 N. Ionia.	**Name and status of the national or local authority responsible for the validation or recognition of the certificate** YP.PO.PAI.TH. (Ministry of Culture, Education and Religious Affairs) A. Papandreou 37, Maroussi PC 151 80
(National or international) qualification Level 3	**Grading scale / Pass requirements** a) successful completion of study in IEK and acquiring training certificate b) b) who have passed the theoretical part of the final exam (Rating scale from 1 to 20, base 10) c) c) success in the practical part of the final exam (Pass / fail)
Access to next level of education or training NO	**international agreements** NO
Legal basis Law 2009/1992 on Vocational Education and Training National System	

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING PISTOPOHTIKOU	
Total duration of the education / training leading to the certificate	2 semesters

Additional information

Entry Requirements: High School Diploma.

Internship - Traineeship: Wood Technology**,** Art and woodwork, Design, Business calculations, Laboratory (Machinery Tools).

National Europass Centre:

E.O.P.P.E.P.

(National Qualification Certification Agency & Vocational Guidance)

National Resistance 41, 142 34, N. Ionia, Athens

Tel. (0030) 210 2709000, 210 2709110

http://europass.eoppep.gr, www.eoppep.gr

(*) Explanatory note

The purpose of this document is to complement the information provided by the certificate. It does not have any legal effect. The format of the description is based on resolution 93 / C 49/01 of 3 December 1992 on transparency of qualifications, Council Resolution 96 / C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613 / EC of the European Parliament and of the Council of 10 July 2001 on the mobility of students, persons undergoing training, volunteers, teachers and trainers. More information: http://europass.cedefop.eu.int

Greece

EUROPASS CERTIFICATE SUPPLEMENT

1. TITLE OF THE CERTIFICATE (EL) (1)
ΞΥΛΟΥΡΓΟΣ
(1) In the original language.

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) (1)
CARPENTER
This translation has no legal status.

3. SKILLS PROFILE

The Licensed holder of this certificate:

KNOWLEDGES

1. Recognizes the basic wood types, their physical characteristics and describes its physical properties.

2. Lists the products and by-products resulting from the processing of wood.

3. Recognizes the tools and machinery necessary for the processing of wood and indicates their use and how they work.

4. Describes the methods of manufacture of furniture and various wooden constructions.

5. Recognizes the basic math and metric sizes, which are necessary for calculations of surfaces, volumes, weight and other measures in relation to carpentry.

6. Lists the instruments and materials needed for the free and linear design and describes the stages of design in scale construction projects and furniture designs.

7. Recognizes the engineering, architectural and construction plans.

8. It names terminology with respect to its specificity.

9. It names the security measures in the workplace.

10. It lists the tools and the Computer programs related to the design, word processing etc.

SKILLS

1. Handles with accuracy and security tools and woodworking machinery.

2. Maintains tools and machines of specialty consulting their textbooks.

3. Calculates and orders raw materials and materials that are necessary for a woodwork.

4. Treats with discretion and security wood and apply the appropriate wood wiring techniques to complete the task of woodwork.

5. Performs followed accurately manufacturing furniture designs and woodwork.

6. Classifies the work required for a structure with the appropriate priority and oversee all stages until delivery.

7. Solves problems on specific issues, such preparations, changes due to technical problems, joints, welds, leveling, assemblies, placements etc. during the project.

8. Performs estimates, metrics and measurements to be delegated project to final placement areas to ensure project quality.

9. Compile a basic estimate for construction of wooden objects and furniture.

ABILITIES

1. Follows the controllers' instructions, understands how to implement and respect the timetable set.

2. Undertakes autonomous woodwork and furniture making and is responsible for the quality of work and compliance with the deadlines set.

3. Collaborates with people of other specialties for the construction of complex projects, such as designers, building contractors, architects, decorators, etc.

4. RANGE OF OCCUPATIONS ACCESSIBLE / HOLDER OF THE CERTIFICATE (1)
The holder of this certificate can be employed in Furniture, Woodworking plants or other players.
(1) If applicable.

5. OFFICIAL BASIS OF THE CERTIFICATE	
Name and status of the body awarding the certificate E.O.P.P.E.P. (National Qualification Certification Agency & Professional orientation) Ethnikis Antistaseos 41, PC 142 34 N. Ionia.	**Name and status of the national or local authority responsible for the validation or recognition of the certificate** YP.PO.PAI.TH. (Ministry of Culture, Education and Religious Affairs) A. Papandreou 37, Maroussi PC 151 80
(National or international) qualification level 5	**Grading scale / Pass requirements** a) successful completion of study in VET and acquiring training certificate b) who have passed the theoretical part of the final exam (Rating scale from 1 to 20, base 10) c) success in the practical part of the final exam (Pass / fail)
Access to next level of education or training NO	**international agreements** NO
Legal basis Law 2009/1992 on Vocational Education and Training National System Law 4186/2013 on Restructuring Secondary Education and other provisions	

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING PISTOPOHTIKOU	
Total duration of the education / training leading to the certificate	4 semesters (until n.4186 / 2013) 5 semesters (after n.4186 / 2013)

Additional information

Entry requirements: Baccalaureate General or Vocational High School or equivalent qualification.

Internship - Traineeship:

• Until the enactment of n.4186 / 2013: Practical training is optional and lasts for one semester.

• After the enactment of n.4186 / 2013: Practical training is compulsory and lasts from 1 semester to 1 year.

Courses: Technical design, Free design, decorative design, wood technology and materials expertise, furniture Rythmology, wooden constructions, Furniture, Measurement of wooden structure calculations colors - surface treatment, Apprenticeship, work safety, English, Computers.

National Europass Centre:

E.O.P.P.E.P.

(National Qualification Certification Agency & Vocational Guidance)

National Resistance 41, 142 34, N. Ionia, Athens

Tel. (0030) 210 2709000, 210 2709110

http://europass.eoppep.gr, www.eoppep.gr

(*) Explanatory note

The purpose of this document is to complement the information provided by the certificate. It does not have any legal effect. The format of the description is based on resolution 93 / C 49/01 of 3 December 1992 on transparency of qualifications, Council Resolution 96 / C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613 / EC of the European Parliament and of the Council of 10 July 2001 on the mobility of students, persons undergoing training, volunteers, teachers and trainers. More information: http://europass.cedefop.eu.int

CERTIFICATE SUPPLEMENT (*)

Austria

1. TITLE OF THE CERTIFICATE (DE) (1)

Lehrabschlussprüfungszeugnis Tischlereitechnik – Planung

(1) in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) (2)

Certificate of Apprenticeship "joinery technology specialising in Planning" (f/m)

(2) This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

- recording of real measurements, ability to produce, read and process sketches, work drawings and plans,
- implementation of work preparation,
- selection and processing of required materials,
- cooperation in product and production process development,
- production of sketches, designs and simple perspectives,
- designing of sales drawings, also using the software commonly used in the sector,
- planning of interior space and room solutions,
- sales talks with customers and talks with suppliers,
- implementation of quality control measures,
- planning of tasks taking into consideration relevant safety regulations, standards as well as safety, environmental, and quality standards,
- appropriate written and oral command of language and mode of expression as well as use of job-related foreign language

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE (3)

Range of occupations:
Employment in companies of the joiner's trade or the wood-processing industry, in workshops and planning offices and sometimes also directly at the customers'.

Pursuit of regulated professions on a self-employed basis:
Qualifications pursuant to the 1994 *Gewerbeordnung* (Crafts, Trade, Service and Industry Act): The crafts, services and trades regulated on the basis of the 2002 Amendment to the *Gewerbeordnung* are subject to the provisions of the *Gewerbeordnung* on the furnishing of certificates of competency as contained in the respective regulations. Final apprenticeship examinations completed successfully replace, in particular, those parts of the master craftsperson examination which relate to subject-specific skills and competences in the various crafts and trades.

(3) if applicable

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Bundesministerium für Wissenschaft, Forschung und Wirtschaft (Federal Ministry of Science, Research and Economy)
Level of the certificate (national or international) ISCED 354	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the *Berufsreifeprüfung* (i.e. certificate providing university access for skilled workers) or a VET college for people under employment. Access to courses at a *Fachhochschule* (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** International agreements on the mutual recognition of apprenticeship trades have been concluded between Germany, Hungary, the South Tyrol and Austria. More information on this topic may be obtained at the Austrian Federal Ministry of Science, Research and Economy.

Legal basis

1. Training Regulation and Examination Regulation for Joinery Technology BGBl. II (Federal Law Gazette) No. 203/09 (enterprise-based training)
2. Curriculum framework (education at the vocational school for apprentices)
3. The present apprenticeship trade replaces the apprenticeship trade “Joinery Engineering” (Training Regulation and Examination Regulation BGBl. (Federal Law Gazette) 22/04, as amended by BGBl. II (Federal Law Gazette) No. 104/07), in which no more training is provided as of 30.06.2009.

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for Joinery Technology and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the Berufsausbildungsgesetz (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

Duration of training: 4 years

Enterprise-based training: Enterprise-based training comprises $^{4}/_{5}$ of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBl. II (Federal Law Gazette) No. 203/09, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

Education at vocational school: School-based education comprises $^{1}/_{5}$ of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject-oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
http://www.edusystem.at

National Europass Center: info@europass-info.at
Ebendorferstraße 7, A-1010 Wien; Tel. + 43 1 53408-684 or 685

CERTIFICATE SUPPLEMENT (*)

Österreich

1. TITLE OF THE CERTIFICATE (DE) [1]

Lehrabschlussprüfungszeugnis Holztechnik – Werkstoffproduktion

[1] in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) [2]

Certificate of Apprenticeship "Timber Technology specialising in Materials Production" (f/m)

[2] This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

Basic and main module:

- assessment, control, selection and appropriate storage of timber products, trimmed and round timber, as well as preparation for further processing (e.g. debarking)
- set-up, preparation, adjustment, examination and maintenance of wood-drying plants, treatment plants and production machinery and installations to manufacture materials such as particle boards, fibreboards, plywood, wood glue products
- operation, supervision and control of hoisting equipment, lifting and transport facilities, wood-drying plants, treatment plants and production machinery and installations to manufacture materials such as particle boards, fibreboards, plywood, wood glue products also by using computer-based systems
- surface treatment and finishing
- performance of the work taking into consideration relevant safety regulations, standards, environmental and quality standards
- appropriate written and oral command of language and mode of expression as well as use of job-related foreign language

Training in the following special module can be attended in addition to the basic and main module, with the aim of acquiring more in-depth know-how and specialisation.

Special module "Design and Construction":

- preparation of draft drawings by hand and computer-based
- planning, drafting and creative design of products, parts or components according to own ideas and design specifications for series production
- implementation of calculations in connection with the design of products, parts or components for series production
- presentation of the results of work by applying presentation aids

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [3]

Range of occupations:
Employment in particular in companies of the wood-processing and -manufacturing industry, such as the fibre and particle board industry or timber and furniture construction industry.

Pursuit of regulated professions on a self-employed basis:
Qualifications pursuant to the 1994 *Gewerbeordnung* (Crafts, Trade, Service and Industry Act): The crafts, services and trades regulated on the basis of the 2002 Amendment to the *Gewerbeordnung* are subject to the provisions of the *Gewerbeordnung* on the furnishing of certificates of competency as contained in the respective regulations. Final apprenticeship examinations completed successfully replace, in particular, those parts of the master craftsperson examination which relate to subject-specific skills and competences in the various crafts and trades.

[3] if applicable

(*) Explanatory note
This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/614/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.
More information on transparency is available at: http://europass.cedefop.europa.eu or www.europass.at/

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Bundesministerium für Wissenschaft, Forschung und Wirtschaft (Federal Ministry of Science, Research and Economy)
Level of the certificate (national or international) ISCED 35	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the Berufsreifeprüfung (i.e. certificate providing university access for skilled workers) or a technical and vocational college for people in employment. Access to courses at a Fachhochschule (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** International agreements on the mutual recognition of apprenticeship trades have been concluded between Germany, Hungary, the South Tyrol and Austria. More information on this topic may be obtained at the Austrian Federal Ministry of Science, Research and Economy.

Legal basis

1. Training Regulation and Examination Regulation for Timber Technology BGBl. II (Federal Law Gazette) No. 401/08 (enterprise-based training)
2. Curriculum framework (education at the vocational school for apprentices)
3. The present apprenticeship trade replaces the apprenticeship trade Wood Processing and Sawing Technique (Training and Examination Regulation BGBl. II [Federal Law Gazette] No. 190/00, as amended BGBl. II No. 177/05) which expired as of 30 April 2009.
4. The apprenticeship "Timber Technology" has been set up as a modular apprenticeship. Following the basic and main module, there are two optional training variants: a special module or another main module.
5. Apprentices can select the special module "Design and Construction". The selection of additional main modules is: "Production of Prefabricated Components" and "Sawing Technology". Information about the main and special modules is provided in the Certificate of Apprenticeship.

The present apprenticeship trade has been replaced by the apprenticeship Timber Technology (Training Regulation BGBl. [Federal Law Gazette] II No. 401/08). The certificate of apprenticeship issued upon successful completion of the final apprenticeship examination in the apprenticeship trade Wood Processing and Sawing Technique (cf. item 6) keeps its validity.

6. OFFICIALY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for Timber Technology and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the Berufsausbildungsgesetz (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

Duration of training: Basic module and main module: 3 years; basic module, main module and special module/additional main module: 3.5 years; basic module, main module, and additional main module: 4 years.

Company-based training: Enterprise-based training comprises 4/5 of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBl. II (Federal Law Gazette) No. 401/08, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

Education at vocational school: School-based education comprises 1/5 of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
http://www.certificate.at and http://www.bmwfw.gv.at

National reference point: info@zeugnisinfo.at
National Europass Center: info@europass-info.at

CERTIFICATE SUPPLEMENT (*)

Österreich

1. TITLE OF THE CERTIFICATE (DE) [1]

Lehrabschlussprüfungszeugnis Tischlerei

[1] in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) [2]

Certificate of Apprenticeship ´joinery´ (f/m)

[2] This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

- assessment, selection and appropriate storage of woods, materials and auxiliary materials
- set-up, preparation, operation, and servicing of machines and installations
- design and planning of workpieces
- manufacture of products, in particular in the fields of cabinet making and interior design, doors, portals, windows, window beams, roller shutters, roller blinds, wall and ceiling panelling, wooden floors and interior walling
- advisory service for customers
- treatment of wood, wood-based panels, plastic and metal, as well as respective surfaces
- performance of function test and quality control
- performance of tasks taking into consideration relevant safety, environmental, and quality standards
- appropriate written and oral command of language and mode of expression as well as use of job-related foreign language

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [3]

Range of occupations:
Employment in particular in enterprises of the joiner's trade and in enterprises of the wood-working industry.

Pursuit of regulated professions on a self-employed basis:
Qualifications pursuant to the 1994 Gewerbeordnung (Crafts, Trade, Service and Industry Act): The crafts, services and trades regulated on the basis of the 2002 Amendment to the Gewerbeordnung are subject to the provisions of the Gewerbeordnung on the furnishing of certificates of competency as contained in the respective regulations. Final apprenticeship examinations completed successfully replace, in particular, those parts of the master craftsperson examination which relate to subject-specific skills and competences in the various crafts and trades.

[3] if applicable

(*) **Explanatory note**
This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/614/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.
More information on transparency is available at: http://europass.cedefop.europa.eu or http://www.europass.at/

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	**Name and status of the national/regional authority providing accreditation/recognition of the certificate** Bundesministerium für Wissenschaft, Forschung und Wirtschaft (Federal Ministry of Science, Research and Economy)
Level of the certificate (national or international) ISCED 354	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the Berufsreifeprüfung (i.e. certificate providing university access for skilled workers), a bridge course, a part-time industrial master college or a technical and vocational college for people under employment. Access to courses at a Fachhochschule (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** International agreements on the mutual recognition of apprenticeship trades have been concluded between Germany, Hungary, the South Tyrol and Austria. More information on this topic may be obtained at the Austrian Federal Ministry of Science, Research and Economy.
Legal basis 1. Training Regulation and Examination Regulation for Joinery, BGBl. (Federal Law Gazette) II No. 195/00 (company-based training) 2. Curriculum framework (education at the vocational school for apprentices)	

6. OFFICIALY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for Joinery and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the Berufsausbildungsgesetz (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses, etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

Duration of training: 3 years

Company-based training: comprises 4/5 of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBl. (Federal Law Gazette) II No. 195/00, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

Education at vocational school: School-based education comprises 1/5 of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their company-based training and of widening their general education in the framework of subject-oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
http://www.certificate.at and http://www.bmwfw.gv.at

National reference point: info@zeugnisinfo.at

National Europass Center: info@europass-info.at

CERTIFICATE SUPPLEMENT (*)

Austria

1. TITLE OF THE CERTIFICATE (DE) [1]

Lehrabschlussprüfungszeugnis Tischlereitechnik – Produktion

[1] in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) [2]

Certificate of Apprenticeship “joinery technology specialising in production” (f/m)

[2] This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

- ability to read and produce sketches, work drawings and plans,
- implementation of work preparation,
- selection, examination and processing of required materials,
- set-up, preparation, testing, putting into operation of machinery and equipment according to specifications,
- surface preservation and finishing,
- identification, diagnosis and correction of defects,
- utilisation, recycling and appropriate disposal of residual products,
- talks with suppliers,
- testing of functions and implementation of quality control measures as well as their documentation,
- performance of tasks taking into consideration relevant safety regulations, standards as well as safety, environmental, and quality standards,
- appropriate written and oral command of language and mode of expression as well as use of job-related foreign language

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [3]

Range of occupations:
Employment in companies of the joiner’s trade or the wood-processing industry, in workshops and planning offices or at the customers’.

Pursuit of regulated professions on a self-employed basis:
Qualifications pursuant to the 1994 *Gewerbeordnung* (Crafts, Trade, Service and Industry Act): The crafts, services and trades regulated on the basis of the 2002 Amendment to the *Gewerbeordnung* are subject to the provisions of the *Gewerbeordnung* on the furnishing of certificates of competency as contained in the respective regulations. Final apprenticeship examinations completed successfully replace, in particular, those parts of the master craftsperson examination which relate to subject-specific skills and competences in the various crafts and trades.

[3] if applicable

(*) Explanatory note

This document has been developed with a view to providing additional information on individual certificates; it has no legal effect in its own right. These explanatory notes refer to the Council Resolution no. 2241/2004/EG of the European parliament and the Council of 15 December 2004 on a single Community framework for the transparency of qualifications and competences (Europass).
Any section of these notes which the issuing authorities consider irrelevant may remain blank.
More information on transparency is available at: http://europass.cedefop.europa.eu or www.europass.at

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Bundesministerium für Wissenschaft, Forschung und Wirtschaft (Federal Ministry of Science, Research and Economy)
Level of the certificate (national or international) ISCED 354	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the *Berufsreifeprüfung* (i.e. certificate providing university access for skilled workers) or a VET college for people under employment. Access to courses at a *Fachhochschule* (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** International agreements on the mutual recognition of apprenticeship trades have been concluded between Germany, Hungary, the South Tyrol and Austria. More information on this topic may be obtained at the Austrian Federal Ministry of Science, Research and Economy.

Legal basis

1. Training Regulation and Examination Regulation for Joinery Technology BGBl. II (Federal Law Gazette) No. 203/09 (enterprise-based training)
2. Curriculum framework (education at the vocational school for apprentices)

3. The present apprenticeship trade has been replaced by the apprenticeship Joinery Engineering (Training Regulation BGBl. [Federal Law Gazette] II No. 203/09). The certificate of apprenticeship issued upon successful completion of the final apprenticeship examination in the apprenticeship trade Joinery Engineering (cf. item 6) keeps its validity.

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for Joinery Technology and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the Berufsausbildungsgesetz (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

Duration of training: 4 years

Enterprise-based training: Enterprise-based training comprises $^{4}/_{5}$ of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBl. II (Federal Law Gazette) No. 203/09, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

Education at vocational school: School-based education comprises $^{1}/_{5}$ of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject-oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
http://www.edusystem.at

National Europass Center: info@europass-info.at
Ebendorferstraße 7, A-1010 Wien; Tel. + 43 1 53408-684 or 685

CERTIFICATE SUPPLEMENT (*)

Österreich

1. TITLE OF THE CERTIFICATE (DE) [1]

Lehrabschlussprüfungszeugnis Holztechnik – Fertigteilproduktion

[1] in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) [2]

Certificate of Apprenticeship "Timber Technology specialising in the Production of Prefabricated Components" (f/m)

[2] This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

Basic and main module:

- assessment, control, selection and appropriate storage of timber products and trimmed timber
- set-up, preparation, adjustment, examining and maintaining wood-drying plants and production machinery and installations to produce prefabricated components such as e.g. windows, doors, stairs, furniture and furniture parts of timber and other material
- operation, monitoring and control of hoisting equipment, lifting and transport facilities wood-drying plants and production machinery and installations to produce prefabricated components such as e.g. windows, doors, stairs, furniture and furniture parts of timber and other material also by using computer-based systems
- preassembly and assembly of prefabricated products such as e.g. windows, doors, stairs, furniture and furniture parts
- surface treatment and finishing
- performance of the work taking into consideration relevant safety regulations, standards, environmental and quality standards
- appropriate written and oral command of language and mode of expression as well as use of job-related foreign language

Training in the following special module can be attended in addition to the basic and main module, with the aim of acquiring more in-depth know-how and specialisation.
Special module "Design and Construction":

- preparation of draft drawings by hand and computer-based
- planning, drafting and creative design of products, parts or components according to own ideas and design specifications for series production
- implementation of calculations in connection with the design of products, parts or components for series production
- presentation of the results of work by applying presentation aids

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [3]

Range of occupations:
Employment in particular in companies of the wood-processing and -manufacturing industry, such as the fibre and particle board industry or timber and furniture construction industry.

Pursuit of regulated professions on a self-employed basis:
Qualifications pursuant to the 1994 *Gewerbeordnung* (Crafts, Trade, Service and Industry Act): The crafts, services and trades regulated on the basis of the 2002 Amendment to the *Gewerbeordnung* are subject to the provisions of the *Gewerbeordnung* on the furnishing of certificates of competency as contained in the respective regulations. Final apprenticeship examinations completed successfully replace, in particular, those parts of the master craftsperson examination which relate to subject-specific skills and competences in the various crafts and trades.

[3] if applicable

(*) **Explanatory note**
This document has been developed with a view to providing additional information on individual certificates; it has no legal effect in its own right. These explanatory notes refer to the Council Resolution no. 2241/2004/EG of the European parliament and the Council of 15 December 2004 on a single Community framework for the transparency of qualifications and competences (Europass).
Any section of these notes which the issuing authorities consider irrelevant may remain blank.
More information on transparency is available at: http://europass.cedefop.europa.eu or www.europass.at

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	**Name and status of the national/regional authority providing accreditation/recognition of the certificate** Bundesministerium für Wissenschaft, Forschung und Wirtschaft (Federal Ministry of Science, Research and Economy)
Level of the certificate (national or international) ISCED 35	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the Berufsreifeprüfung (i.e. certificate providing university access for skilled workers) or a technical and vocational college for people in employment. Access to courses at a Fachhochschule (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** International agreements on the mutual recognition of apprenticeship trades have been concluded between Germany, Hungary, the South Tyrol and Austria. More information on this topic may be obtained at the Austrian Federal Ministry of Science, Research and Economy.

Legal basis

1. Training Regulation and Examination Regulation for Timber Technology BGBl. II (Federal Law Gazette) No. 401/08 (enterprise-based training)
2. Curriculum framework (education at the vocational school for apprentices)
3. The present apprenticeship trade replaces the apprenticeship trade Wood Processing and Sawing Technique (Training and Examination Regulation BGBl. II [Federal Law Gazette] No. 190/00, as amended by BGBl. II No. 177/05) which expired as of 30 April 2009.
4. The apprenticeship "Timber Technology" has been set up as a modular apprenticeship. Following the basic and main module, there are two optional training variants: a special module or another main module.
5. Apprentices can select the special module "Design and Construction". The selection of additional main modules is: "Materials Production" and "Sawing Technology". Information about the main and special modules is provided in the Certificate of Apprenticeship.
6. The present apprenticeship trade has been replaced by the apprenticeship Timber Technology (Training Regulation BGBl. [Federal Law Gazette] II No. 401/08). The certificate of apprenticeship issued upon successful completion of the final apprenticeship examination in the apprenticeship trade Wood Processing and Sawing Technique (cf. item 6) keeps its validity.

6. OFFICIALY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for Timber Technology and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the Berufsausbildungsgesetz (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

Duration of training: Basic module and main module: 3 years; basic module, main module and special module/additional main module: 3.5 years; basic module, main module, and additional main module: 4 years.

Company-based training: Enterprise-based training comprises 4/5 of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBl. II (Federal Law Gazette) No. 401/08, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

Education at vocational school: School-based education comprises 1/5 of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
http://www.edusystem.at

National Europass Center: info@europass-info.at
Ebendorferstraße 7, A-1010 Wien; Tel. + 43 1 53408-684 or 685

CERTIFICATE SUPPLEMENT (*)

Österreich

1. TITLE OF THE CERTIFICATE (DE) [1]

Lehrabschlussprüfungszeugnis Holztechnik – Sägetechnik

[1] in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) [2]

Certificate of Apprenticeship "Timber Technology specialising in Sawing Technology" (f/m)

[2] This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

Basic and main module:

- assessment, control, selection and appropriate storage of woods taking into account the regulations commonly applied in the sector
- set-up, preparation, adjustment, examining and maintaining equipment, machines, installations and facilities
- operation, supervision and control of transport facilities, wood-drying plants, treatment plants and production machinery and installations also by using computer-based systems
- processing and manufacturing of wood, in particular production and further processing of trimmed timber
- surface treatment and finishing, performance of the work taking into consideration relevant safety regulations, standards, environmental and quality standards
- performance of the work taking into consideration relevant safety regulations, standards, environmental and quality standards
- appropriate written and oral command of language and mode of expression as well as use of job-related foreign language

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [3]

Range of occupations:
Employment in particular in companies of the wood-processing and -manufacturing industry, such as the fibre and particle board industry or timber and furniture construction industry).

Pursuit of regulated professions on a self-employed basis:
Qualifications pursuant to the 1994 *Gewerbeordnung* (Crafts, Trade, Service and Industry Act): The crafts, services and trades regulated on the basis of the 2002 Amendment to the *Gewerbeordnung* are subject to the provisions of the *Gewerbeordnung* on the furnishing of certificates of competency as contained in the respective regulations. Final apprenticeship examinations completed successfully replace, in particular, those parts of the master craftsperson examination which relate to subject-specific skills and competences in the various crafts and trades.

[3] if applicable

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Bundesministerium für Wissenschaft, Forschung und Wirtschaft (Federal Ministry of Science, Research and Economy)
Level of the certificate (national or international) ISCED 35	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the Berufsreifeprüfung (i.e. certificate providing university access for skilled workers) or a technical and vocational college for people in employment. Access to courses at a Fachhochschule (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** International agreements on the mutual recognition of apprenticeship trades have been concluded between Germany, Hungary, the South Tyrol and Austria. More information on this topic may be obtained at the Austrian Federal Ministry of Science, Research and Economy.

Legal basis

1. Training Regulation and Examination Regulation for Timber Technology BGBl. II (Federal Law Gazette) No. 401/08 (enterprise-based training)
2. Curriculum framework (education at the vocational school for apprentices)
3. The present apprenticeship trade replaces the apprenticeship trade Wood Processing and Sawing Technique (Training and Examination Regulation BGBl. II [Federal Law Gazette] No. 190/00, as amended by BGBl. II No. 177/05) which expired as of 30 April 2009.
4. The apprenticeship "Timber Technology" has been set up as a modular apprenticeship. Following the basic and main module, there exists the option to provide training in an additional main module. Apprentices can select the additional main module "Materials Production". Information about the main modules is provided in the Certificate of Apprenticeship.
5. The present apprenticeship trade has been replaced by the apprenticeship Timber Technology (Training Regulation BGBl. [Federal Law Gazette] II No. 401/08). The certificate of apprenticeship issued upon successful completion of the final apprenticeship examination in the apprenticeship trade Wood Processing and Sawing Technique (cf. item 6) keeps its validity.

6. OFFICIALY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for Timber Technology and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the Berufsausbildungsgesetz (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

Duration of training: Basic module and main module: 3 years; basic module, main module and additional main module: 4 years.

Company-based training: Enterprise-based training comprises 4/5 of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBl. II (Federal Law Gazette) No. 401/08, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

Education at vocational school: School-based education comprises 1/5 of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
http://www.certificate.at and http://www.bmwfw.gv.at

National reference point: info@zeugnisinfo.at
National Europass Center: info@europass-info.at

Europass certificate supplement (*)

1. Title of the certificate (A)

Diploma di Istruzione Professionale
Indirizzo PRODUZIONI INDUSTRIALI E ARTIGIANALI
Articolazione "INDUSTRIA"
Opzione: "ARREDI E FORNITURE D'INTERNI"

(A) In the original language

2. Translated title of the certificate (B)

Upper secondary education diploma – Vocational schools
CRAFT AND MANUFACTURING PRODUCTIONS
Specialization: "FURNITURE AND INTERIOR SUPPLIES"

(B) If applicable. This translation has no legal status.

3. Profile of skills and competences (**)

On completion of the education/training pathway, the holder of the certificate is able to:

Skills common to all vocational schools

- use the vocabulary and expressions of the Italian language based on communication needs in different contexts: social, cultural, scientific, economic, technological;
- establish links between local, national and international cultural traditions, in a cross-cultural perspective and for the purposes of study and work mobility;
- use the cultural tools and methodologies acquired to take on a rational, critical, creative and responsible attitude towards reality, the phenomena and problems encountered, also for lifelong learning purposes;
- use and develop visual communication and multimedia tools also with reference to the expressive strategies and technical tools of online communication;
- command the English language and, if applicable, another EU language and use the sectorial language related to the education pathway in order to interact within various communicative and professional contexts, at level B2 of the Common European Framework of Reference for Languages (CEFR);
- use the language and methods of mathematics to organise and adequately evaluate qualitative and quantitative information;
- apply project management methods and techniques;
- write technical reports and document individual and group activities with regard to specific work situations;
- identify and use communication and team-working tools as appropriate to the sector organizational and professional contexts.

Skills of the *Furniture and Interior Supplies* specialization

- adequately use ICT tools and software programmes specifically designed for production and management;
- select and manage production processes in view of specific material and technology solutions;
- follow the regulatory procedures for production processes in compliance with the regulation on living and workplace safety and environment and land protection;
- be familiar with such principles as efficacy, efficiency and cost-effectiveness and apply quality control systems to the working activity;
- master manufacturing techniques and suitable management systems in processing, distributing and marketing handicraft products;
- intervene in the various phases of production processes while retaining a systemic vision thereof;
- coordinate the various phases across the production, finishing and assembly process of furniture and interior supplies, keeping a systemic vision;
- apply specific technology solutions for product manufacturing and finishing;
- be familiar with the formal and style elements of furniture and furnishing from different ages;
- promote local traditional production with a focus on both creative and technical profile, applied to new product and furniture design.

The "Furniture and Interior Supplies" specialization is intended to provide students with the necessary skills to coordinate different process phases concerning the production of single furniture elements (either wood or other materials) within companies, as well as interior design projects for private homes, hotels, offices, commercial properties and premises for the community.

4. Range of occupations accessible to the holder of the certificate

The certificate holder can work as a mid-level employee in small, medium-sized and large craft and industrial enterprises operating in furniture and interior design production and marketing, as well as related businesses and design firms, in the following positions:

- furniture production management operator
- raw material and consumable selection technician
- interior design technical office operator
- woodworking or other material machine operator
- CAD -CAM technical designer
- CNC machine management and programming operator
- finished product quality control and assembly technician
- semi-finished and product finishing and customisation operator
- machine and equipment assembly and disassembly operator
- technical systems maintenance and operation-management operator
- environmental protection and prevention system operator
- store and after-sales operator

Furthermore, he/she can work as a freelancer, in compliance with the applicable law, as:

- owner of craft carpentry workshop
- consultant with technical design firms
- promoter in the furniture business

5. Official basis of the certificate

Name and status of the body awarding the certificate (***)	**Name and status of the national/regional authority providing accreditation/recognition of the certificate** Ministry of Education, University and Research www.istruzione.it
Level of the certificate (national or international) EQF level 4	**Grading scale / Pass requirements** State examination. Final grade out of 100. The full scale is used. Minimum passing grade to obtain the certificate: 60/ 100 A final grade of 100/100 cum laude can also be obtained.
Access to next level of education/training • Higher Technical Education and Training (IFTS) • Higher Technical Education (ITS) • Universities • Military Academies • Higher Level Arts and Music Education (AFAM)	**International agreements**
Legal basis Decree of the President of the Republic no. 87 of 15 March 2010 MIUR-MEF inter-ministerial decree of 24 April 2012	

6. Officially recognised ways of acquiring the certificate

Description of education/ vocational training received	Percentage of total education/training programme (%)	Duration (hours/weeks/months/years)
School-/training centre-based		Standard learning: 1056 hours/year for 5 years
Workplace, internship / work placement / apprenticeship /school-work alternation		The certificate holder can have completed school-work alternation, internship, work placement or apprenticeship pathways and activities documented and officially recognised for the acquisition of the certificate.
Accredited prior learning		
Total duration of the education/training leading to the certificate		5 years

Entry requirements

Lower secondary school leaving diploma.

Additional information

Yearly school hours are divided into mandatory subjects and activities and optional subjects if provided for in the Educational Plan drawn up by each school.

Schools can allocate a percentage of the total hours of the national study plans (up to 20% in the first two years, 20% in the third and fourth years and 20% in the fifth year) to tailor curricula to local needs.

Schools can flexibly allocate a percentage of the total hours of the national study plans to carry out regional professional qualification pathways (up to 25% in the first two years)

Schools can set up a scientific committee made up of teachers and work experts.

Activities and modules related to "Citizenship and Constitution" are envisaged in the historical-geographical and historical-social fields.

Details regarding the School/Certificate holder

School awarding the certificate:

Name of the holder of the certificate:

Attachment of certificate no.:

(*) Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information available at: http://europass.cedefop.europa.eu

(**) The present document does not constitute/replace certification of the competencies of the certificate holder

(***) The reference data of this supplement are indicated in the last box

Supplemento Europass al Certificato (*)

1. Denominazione del certificato (1)

Diploma di Istruzione Professionale

Indirizzo PRODUZIONI INDUSTRIALI E ARTIGIANALI

Articolazione "INDUSTRIA"

Opzione: "ARREDI E FORNITURE D'INTERNI"

(1) In lingua originale

2. Denominazione tradotta del certificato (1)

CRAFT AND MANUFACTURING PRODUCTIONS

Specialization: "FURNITURE AND INTERIOR SUPPLIES"

(1) Se applicabile. La presente traduzione non ha valore legale.

3. Profilo delle abilità e competenze (**)

Competenze in esito al percorso di istruzione/formazione:

Competenze comuni a tutti i percorsi di istruzione professionale

- utilizzare il patrimonio lessicale ed espressivo della lingua italiana secondo le esigenze comunicative nei vari contesti: sociali, culturali, scientifici, economici, tecnologici.
- stabilire collegamenti tra le tradizioni culturali locali, nazionali ed internazionali, sia in prospettiva interculturale sia ai fini della mobilità di studio e di lavoro.
- utilizzare gli strumenti culturali e metodologici per porsi con atteggiamento razionale, critico e responsabile di fronte alla realtà, ai suoi fenomeni, ai suoi problemi, anche ai fini dell'apprendimento permanente.
- utilizzare e produrre strumenti di comunicazione visiva e multimediale, anche con riferimento alle strategie espressive e agli strumenti tecnici della comunicazione in rete.
- padroneggiare la lingua inglese e, ove prevista, un'altra lingua comunitaria per scopi comunicativi e utilizzare i linguaggi settoriali relativi ai percorsi di studio, per interagire in diversi ambiti e contesti professionali, al livello B2 del quadro comune europeo di riferimento per le lingue (QCER).
- utilizzare il linguaggio e i metodi propri della matematica per organizzare e valutare adeguatamente informazioni qualitative e quantitative.
- identificare e applicare le metodologie e le tecniche della gestione per progetti.
- redigere relazioni tecniche e documentare le attività individuali e di gruppo relative a situazioni professionali.
- individuare e utilizzare gli strumenti di comunicazione e di team working più appropriati per intervenire nei contesti organizzativi e professionali di riferimento.

Competenze specifiche di indirizzo.

- utilizzare adeguatamente gli strumenti informatici e i software dedicati agli aspetti produttivi e gestionali.
- selezionare e gestire i processi di produzione in rapporto ai materiali e alle tecnologie specifiche.
- applicare le procedure che disciplinano i processi produttivi, nel rispetto della normativa sulla sicurezza nei luoghi di vita e di lavoro e sulla tutela dell'ambiente e del territorio.
- riconoscere gli aspetti di efficacia, efficienza ed economicità e applicare i sistemi di controllo-qualità nella propria attività lavorativa.
- padroneggiare tecniche di lavorazione e adeguati strumenti gestionali nella elaborazione, diffusione e

commercializzazione dei prodotti artigianali.

- intervenire nelle diverse fasi e livelli del processo produttivo, mantenendone la visione sistemica.
- coordinare le diverse fasi del processo produttivo, della finitura e del montaggio di arredi e forniture d'interni, assumendo una visione sistemica.
- applicare specifiche tecnologie per la realizzazione e la finitura dei prodotti.
- riconoscere i caratteri formali e stilistici di mobili e arredi delle diverse epoche.
- valorizzare, sotto il profilo creativo e tecnico, le produzioni tradizionali del territorio per la progettazione di nuovi prodotti e arredi.

Nell'opzione "Arredi e forniture d'interni" il diplomato coordina, all'interno di un'azienda, le differenti fasi dei processi relativi sia alla produzione di singoli elementi di arredo (in legno ed altri materiali) sia alla realizzazione di allestimenti di interni su progetti per abitazioni, alberghi uffici e locali commerciali e per la collettività.

4. Attività professionali e/o tipologie di lavoro cui il titolare del certificato può accedere

Il diplomato può operare, come collaboratore di livello intermedio, in piccole, medie e grandi aziende industriali e artigianali che si occupano della produzione e commercializzazione di arredi e forniture di interni, imprese commerciali di settore, studi tecnici, con ruoli quali:

- addetto attività di gestione dei processi di produzione di arredi
- tecnico della selezione di materie prime e materiali
- addetto ufficio tecnico progettazione e realizzazione di allestimenti d'interni
- tecnico della lavorazione del legno e degli altri materiali
- disegnatore tecnico CAD -CAM
- addetto alla programmazione e gestione di macchine CNC
- tecnico per l'assemblaggio e il controllo qualità dei prodotti finiti
- addetto alla realizzazione di semilavorati, finitura e personalizzazione dei prodotti
- addetto al montaggio e smontaggio di macchine e apparecchiature
- addetto alla gestione-conduzione e manutenzione degli impianti tecnici
- addetto ai sistemi di protezione e prevenzione e tutela ambientale
- addetto punto vendita e ai servizi di post-vendita

Inoltre può svolgere attività professionale autonoma, secondo quanto previsto dalle norme vigenti, come:

- conduttore di falegnameria artigianale
- consulente presso studi tecnici
- promoter settore arredamento

5. Base legale del certificato

Denominazione e status dell'ente che rilascia il certificato (***)	**Denominazione e status dell'autorità nazionale/regionale che accredita/riconosce il certificato** Ministero dell'Istruzione, dell'Università e della Ricerca www.istruzione.it
Livello (nazionale o internazionale) del certificato Livello 4 EQF	**Sistema di votazione/ requisiti per il conseguimento** Superamento di un esame di stato. Valutazione espressa in centesimi. E' utilizzata l'intera scala numerica. Livello minimo per l'acquisizione del titolo di studio in esito all'esame di stato finale: 60/ 100 E' possibile ottenere una lode oltre i 100/100mi.

Accesso al successivo livello di istruzione/ formazione	Accordi internazionali
• Istruzione e Formazione Tecnica Superiore (IFTS) • Istruzione Tecnica Superiore (ITS) • Università • Accademie Militari • Alta Formazione Artistica, Musicale e Coreutica (AFAM)	
Base giuridica Decreto del Presidente della Repubblica 15 marzo 2010, n. 87 Decreto interministeriale MIUR - MEF 24 Aprile 2012, prot. 7428	

6. Percorso ufficialmente riconosciuto per il conseguimento del certificato

Descrizione del tipo di istruzione/formazione professionale erogata	Percentuale del programma totale di istruzione/formazione (%)	Durata (ore/settimane/mesi/anni)
Scuola/ centro di formazione		Percorso Standard: 1056 ore annue per 5 anni
Luogo di lavoro, stage / tirocinio/ apprendistato o alternanza scuola lavoro		Il diplomato può avere svolto percorsi e attività di alternanza scuola lavoro, stage, tirocinio o apprendistato, documentati e ufficialmente riconosciuti ai fini del conseguimento del diploma.
Percorso pregresso riconosciuto		
Durata totale dell'istruzione/formazione per il conseguimento del certificato		5 anni

Livello iniziale richiesto

Diploma di licenza conclusivo del I ciclo di istruzione.

Informazioni complementari sulla struttura e organizzazione della formazione

Orario annuale delle lezioni articolato in attività e insegnamenti obbligatori e in insegnamenti eventualmente previsti dal piano dell'offerta formativa del singolo istituto scolastico.
Possibilità di definire quote del monte ore complessivo dei piani di studio in base all'autonomia dei singoli istituti scolastici (20% nel primo biennio, 20% nel secondo biennio, 20% nel quinto anno).
Possibilità di definire in modo flessibile quote del monte ore complessivo dei piani di studio per realizzare percorsi di qualifica professionale regionale (25% nel primo biennio).
Possibilità per le istituzioni scolastiche di dotarsi di un comitato scientifico composto di docenti ed esperti del mondo del lavoro.
Le attività e gli insegnamenti relativi a "Cittadinanza e Costituzione" sono previsti nell'area storico-geografica e storico-sociale

Dati dell'Istituto/Diplomato

Istituto scolastico che rilascia il certificato:

Nominativo del Diplomato:

Allegato del diploma N.:

(*) Nota esplicativa

Il presente documento è volto a fornire ulteriori informazioni sul certificato specificato e non ha di per sé alcun valore legale. Il formato della descrizione è basato sulla Risoluzione 93/C 49/01 del Consiglio del 3 dicembre 1992 sulla trasparenza delle qualifiche professionali, sulla Risoluzione 96/C 224/04 del Consiglio del 15 luglio 1996 sulla trasparenza dei certificati di formazione professionale, nonché sulla Raccomandazione 2001/613/CE del Parlamento europeo e del Consiglio del 10 luglio 2001 relativa alla mobilità nella Comunità degli studenti, delle persone in fase di formazione, di coloro che svolgono attività di volontariato, degli insegnanti e dei formatori.
Per ulteriori informazioni: http://europass.cedefop.europa.eu

(**) Il presente documento non costituisce/sostituisce certificazione delle competenze del diplomato.
(***) I dati di riferimento del presente supplemento sono riportati nell'ultimo riquadro

Europass certificate supplement (*)

1. Title of the certificate (A)

Diploma di Istruzione Tecnica
MECCANICA, MECCATRONICA ED ENERGIA
Articolazione "MECCANICA E MECCATRONICA"
Opzione "TECNOLOGIE DEL LEGNO"

(A) In the original language

2. Translated title of the certificate (B)

Upper secondary education diploma – Technical schools
MECHANICS, MECHATRONICS AND ENERGY
Specialization: "WOOD TECHNOLOGY"

(B) If applicable. This translation has no legal status.

3. Profile of skills and competences (**)

On completion of the education/training pathway, the holder of the certificate is able to:

Skills common to all technical schools

- use the vocabulary and expressions of the Italian language based on communication needs in different contexts: social, cultural, scientific, economic, technological;
- establish links between local, national and international cultural traditions, in a cross-cultural perspective and for the purposes of study and work mobility;
- use the cultural tools and methodologies acquired to take on a rational, critical, creative and responsible attitude towards reality, the phenomena and problems encountered, also for lifelong learning purposes;
- use and develop visual communication and multimedia tools also with reference to the expressive strategies and technical tools of online communication;
- command the English language and, if applicable, another EU language and use the sectorial language related to the education pathway in order to interact within various communicative and professional contexts, at level B2 of the Common European Framework of Reference for Languages (CEFR);
- use the language and methods of mathematics to organise and adequately evaluate qualitative and quantitative information;
- identify and apply project management methods and techniques;
- write technical reports and document individual and group activities with regard to specific work situations;
- identify and use communication and team-working tools as appropriate to the sector organizational and professional contexts.

Skills of the *Wood Technology* specialization

- identify the properties, in particular of wood materials, in relation to the use, production processes and treatments;
- measure, process and evaluate measurement values and technical characteristics using adequate tools;
- organise the production process by helping define product manufacture, control and testing methods;
- document and follow the industrialisation processes of wooden products;
- design structures, by also applying mathematical models, and analyse the behaviour of wood materials when subjected to mechanical and thermal stresses;
- program integrated and robotic automation systems for production processes;
- manage and innovate business function-related processes, also at organizational and HR management levels;
- help innovate both production process and product by cooperating with third-party partners;
- manage projects and activities according to the procedures and standards envisaged in companies' quality, safety and environment protection systems.

4. Range of occupations accessible to the holder of the certificate

The certificate holder can work as a mid-level employee in undertakings or local bodies of the wood and furniture manufacturing industry, in the mechanics, mechatronics, construction and shipbuilding industry, as well as in professional firms, in the following positions:

- toolmaker
- CAD-CAM drafter
- woodworking and squaring technician
- manufacturing machine operation and control technician
- CMS machine programming and operation technician
- finished products assembly and quality control technician
- technician in charge of plant safety, occupational health and safety and environmental control
- production process optimisation technician
- technician responsible for the selection, development and purchase of materials for samples;
- R&D technician responsible for process and product innovation

Furthermore, he/she can work as a freelancer, in compliance with the applicable law, as:

- manager of a craft carpentry workshop
- consultant for technical firms

5. Official basis of the certificate

Name and status of the body awarding the certificate (***)	**Name and status of the national/regional authority providing accreditation/recognition of the certificate** Ministry of Education, University and Research www.istruzione.it
Level of the certificate (national or international) EQF level 4	**Grading scale / Pass requirements** State examination. Final grade out of 100. The full scale is used. Minimum passing grade to obtain the certificate: 60/ 100 A final grade of 100/100 cum laude can also be obtained.
Access to next level of education/training • Higher Technical Education and Training (IFTS) • Higher Technical Education (ITS) • Universities • Military Academies • Higher Level Arts and Music Education (AFAM)	**International agreements**
Legal basis Decree of the President of the Republic no. 88 of 15 March 2010 MIUR-MEF inter-ministerial decree of 24 April 2012	

6. Officially recognised ways of acquiring the certificate

Description of education/ vocational training received	Percentage of total education/ training programme (%)	Duration (hours/weeks/months/years)
School-/training centre-based		Standard learning: 1056 hours/year for 5 years
Workplace, internship / work placement / apprenticeship or school-work alternation		The certificate holder can have completed school-work alternation, internship, work placement or apprenticeship pathways and activities documented and officially recognised for the acquisition of the certificate.
Accredited prior learning		
Total duration of the education/training leading to the certificate		5 years

Entry requirements

Lower secondary school leaving diploma.

Additional information

Yearly school hours are divided into mandatory subjects and activities and optional subjects if provided for in the Educational Plan drawn up by each school.

Schools can allocate a percentage of the total hours of the national study plans (up to 20% in the first two years, 20% in the third and fourth years and 20% in the fifth year) to tailor curricula to local needs.

Schools can set up a scientific committee made up of teachers and work experts.

During the 5th year, a non-language-related subject is taught in English.

Activities and modules related to "Citizenship and Constitution" are envisaged in the historical-geographical and historical-social fields.

Details regarding the School/Certificate holder

School awarding the certificate:

Name of the holder of the certificate:

Attachment of certificate no.:

(*) Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information available at: http://europass.cedefop.europa.eu

((**) The present document does not constitute/replace certification of the competencies of the certificate holder

(***) The reference data of this supplement are indicated in the last box

CERTIFICATE SUPPLEMENT (*)

TITLE OF THE QUALIFICATION (SP)
TITLE OF THE QUALIFICATION (SV)

TITULO DE LA CUALIFICACION: *Mecanizado de la madera y derivados MAM058_2*

Formación asociada 490 horas (certificado de profesionalidad)

TRANSLATED TITLE OF THE QUALIFICATION (EN)

MACHINING OF WOOD AND DERIVATIVES

Associated training: 490 hours (Professional Certificate)

This translation has no legal status

PROFILE OF SKILLS AND COMPETENCES

Composition of the qualification

General competence: Make the preparation and operation of machines and equipment of machining for elements of carpentry and furniture making, getting the quality required in terms of occupational health.

The training modules for this qualification are:

UC0160_2: Prepare machines and workshop equipment.
MF0160_2: Adjusting machines and equipment workshop (140 hours). Formed by the following training units:

- UF0237: Analysis of process of machining and interpretation of drawings (50 hours).
- UF0238: Adjustment of conventional machines for machining of wood and derivatives (90 hours).

UC0161_2: Prepare machines and industrial equipment of workshop.
MF0161_2: Adjustment of machines and industrial equipment (220 hours). Formed by the following training units:

- UF0237: Analysis of process of machining and interpretation of drawings (50 hours).
- UF0239: Adjustment of machines and industrial equipment online (90 hours).
- UF0240: Adjustment (80 hours) CNC machining centres.

UC0162_1: Machining of wood and derivatives.
MF0162_1: Machining of wood and derivatives (90 hours).

MP0055: Module not working professional practice of machining of wood and derivate (120 hours)

Any student who completed the training modules of the training cycle of technical vocational training in carpentry and carpentry basic operations and basic operations of furniture has validated the unit of competition to prepare machines and workshop equipment

Any student, who completed modules training modules of the training cycle of technical vocational training in carpentry and woodworking furniture, has validated unit of competition to prepare industrial workshop equipment.

Any student who completed modules training modules of the training cycle of technical vocational training in

carpentry and furniture of machining by CNC in carpentry and furniture, has validated the competition unit for machining wood and derivatives.

Vocational skills and competences required for completion of the qualification
Those who have completed the qualification shall:

- Read and interpret blueprints and specifications of product and process.
- Prepare machines with chip.
- Prepare machines of cladding of faces or edges or union of several pieces of wood.
- Regular Surface preparation machines
- Read and interpret blueprints and specifications of product and process.
- Prepare your individual machines and combined machining lines
- Prepare automatic industrial machines with chip.
- Prepare programmable NC machines.
- Regular automated surface preparation machines.
- Perform the machining of parts on machines, feeding them in a progressive manner aligned to avoid setbacks, brands of tools, hangnail, burns or other defects.
- Machining curved pieces of wood and derivatives, using the band saw to get pieces cut according to the stipulated form.
- Develop the machining of wood and derivatives with the router “tupi”, using templates or outdoor with the means of protection, to obtain parts with the established profile.
- Select, stack the finished product and transport it to the next process, using means appropriate in each case, to continue with the subsequent manufacturing process.

RANGE OF OCCUPATIONS ACCESIBLE TO THE HOLDER OF THE CERTIFICATE

Those who have completed the qualification may work in the:
Manufacture of furniture.
Manufacture of elements of carpentry

Developing these jobs:
Operators of fixed machines to fabricate wood products.
Preparador-ajustador of machines to carve wood, in general
Turner wood (joinery)
Operator of sawmills, in general
Machining of Flakeboard train operator
Operator of machines to fabricate wood products in general
Machine operator (manufacture of wood) Sander
Operator of sierra de precision (manufacturing of wood products)
Machine operator TUPI (manufacture of wood products)
Operator of the cutting of timber and panels
Operator of CNC machines to fabricate wood products

(*) Explanatory note

OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
It is the Ministry of Labour through the Ministries of	

employment or autonomous bodies in each autonomous community	Ministry of Education and Clture
Level of the certificate (national or international) Spanish level 2, 3-4 European Level	**Grading scale/Pass requirements** Pass
Access to the next level of education/training Obtaining this certificate gives access to the intermediate cycle vocational training of technician in joinery and furniture	**International agreements**
Legal basis Real decreto 295/2004	

OFFICIALLY RECOGNISED WAYS OF OBTAINING THE CERTIFICATE

The qualification can be obtained, by way of formal, for the realization of the corresponding professional certificate training.

The informal via accreditation of competences obtained through professional experience.

Either having made the title of technician in joinery and furniture according to the Royal Decree 1128/2010, of 10 September

Entry requirements
It must be shown or credited a level of competence in the areas indicated below which ensures the minimum training necessary for the module use:

- Communication in Spanish.
- Mathematical competence.
- Digital competence.
-

Additional information
The training for this qualification can be given by approved for the delivery of this qualification, or own administration, Ministry of employment centres. These centres must meet the requirements of teachers and facilities established by the certificate.

Teachers should have a certain degree, along with experience in the sector and recognition of their pedagogical skills.

CERTIFICATE SUPPLEMENT (*)

TITLE OF THE QUALIFICATION (SP)
TITLE OF THE QUALIFICATION (SV)

TITULO DE LA CUALIFICACION: Preparación de la madera MAM215_2

Formación asociada 350 horas (certificado de profesionalidad)

TRANSLATED TITLE OF THE QUALIFICATION (EN)

PREPARATION OF WOOD

Associated training: 330hours (Professional Certificate)

This translation has no legal status

PROFILE OF SKILLS AND COMPETENCES

Composition of the qualification

General competence: To carry out the drying and wood treatment operations to protect against agents degrading and improve their properties, using methods and specific equipment, achieving the required quality, in conditions of safety, adequate labour and environmental health.

UC0432_1: Handling loads with forklifts.
MF0432_1: Handling of loads with forklifts (50 h)
UC0684_2: Carry out the drying of wood.
MF0684_2: Drying of wood (80 h)
UC0685_2: Perform preventive treatments to wood.
MF0685_2: Preventive treatment of wood (60 h)
UC0686_2: Perform healing treatments to the wood.
MF0686_2: Healing treatments of wood(80 h)

MP0299: Module professional non-labour practices of preparation of wood (80 h)
Vocational skills and competences required for completion of the qualification
Those who have completed the qualification shall:

- Correctly interpret orders of movement of materials and products for their loading or unloading, in order to proceed to their storage, supply, delivery time or any other movement in the logistic flow.
- Properly manage products and units of charge for their subsequent handling, following the instructions of procedure or orders received.
- Use automotive or manual trucks, following established procedures, observing environmental occupational risk prevention.
- Perform maintenance on first level of automotive maintenance trolleys or the manual traction, ensuring compliance with the minimum requirements of safety and health established for their use.
- Perform the loading or unloading of materials and products in accordance with the instructions received and, where appropriate, under the supervision of a responsible person.
- Transporting and supplying raw materials and materials to production lines, as well as remove waste generated in the production processes zones provided for this purpose.
- Adopt security measures for the prevention of occupational hazards and health for workers.
- Collaborate on stock control transmit the information of cargo movement performed.

- Preparation of materials and equipment for wood drying operations.
- Carry out the natural or forced drying, depending on the planned programme operations.
- Carry out operations of control, and basic maintenance of parks, dryers and other equipment for physical treatments.
- Control the movement of roundwood, sawn wood and wooden parts made in the park, to check their quality in accordance with the rules laid down.
- Prepare the teams of application of preventive treatments to wood, in conditions of safety, adequate labour and environmental health.
- Carry out the protection of wood in safety, occupational health and environmental conditions and verify the quality of the treatment.
- To establish treatments applied in wood according to the damages that they have.
- Perform the preparation and mixing of the products 'biocidal products' specifications supplied and manipulating them in safety, occupational health and environmental conditions.
- Preparing the application equipment according to the instruction manuals, in safety, occupational health and environmental conditions.
- Perform the application of curative products in adequate conditions of safety, occupational health and environment, proving their effectiveness.

RANGE OF OCCUPATIONS ACCESIBLE TO THE HOLDER OF THE CERTIFICATE

Range of occupations
This job profile exerts its activity normally as self-employed, in sawmills, lumberyards, elements of carpentry and furniture factories, and companies engaged in timber treatment.

Professional Job Profiles
79110048 Wood dryer.
79110039 Wood coater.
Treater of wood in general.
Operator of drying and wood treatment.
Coating wood machine operator.
Instrumental operator for treatment of wood in general.
Operator of autoclave ovens (chemical treatments and related).
80400013 Manager of the workshop for treatment of wood.
Driver forklift of logs and timber.
Forklift driver.
Driver-operator of vehicles for transport of lumber.

(*) Explanatory note

OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
It is the Ministry of Labour through the Ministries of employment or autonomous bodies in each autonomous community	Ministry of Education and Culture, INCUAL
Level of the certificate (national or international) Spanish level 2, 3-4 European Level	**Grading scale/Pass requirements** Pass

CERTIFICATE SUPPLEMENT (*)

Access to the next level of education/training	International agreements

Legal basis

(RD 1228/2006, de 3 de enero)

OFFICIALLY RECOGNISED WAYS OF OBTAINING THE CERTIFICATE

The qualification can be obtained, by way of formal, for the realization of the corresponding professional certificate training.

The informal via accreditation of competences obtained through professional experience.

Either having made the title of technician in preparation of the wood according to the Royal Decree 1228/2006

Entry requirements

It must be shown or credited a level of competence in the areas indicated below which ensures the minimum training necessary for the module use:

- Communication in Spanish.
- Mathematical competence.
- Digital competence.

Additional information

The training for this qualification can be given by approved for the delivery of this qualification, or own administration, Ministry of employment centres. These centres must meet the requirements of teachers and facilities established by the certificate.

Teachers should have a certain degree, along with experience in the sector and recognition of their pedagogical skills.

EUROPASS DIPLOMA SUPPLEMENT TO TECHNICAL VOCATIONAL TRAINING

TITLE OF THE DIPLOMA (ES)

Técnico en Carpintería y Mueble

TRANSLATED TITLE OF THE DIPLOMA (EN) (1)

Technician in Joinery and Furniture Making

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(1) This translation has no legal status.

DIPLOMA DESCRIPTION

The holder of this diploma will have acquired the General Competence with regard to:

Manufacturing joinery and furniture elements, carrying out the processes of machining, assembly, finishing, storage and product dispatch, complying with quality, safety and environmental protection specifications.

Within this framework, the PROFESSIONAL MODULES and their respective LEARNING OUTCOMES acquired by the holder are listed below:

"Joinery and Cabinetmaking Materials"

The holder:

- Identifies the main types of wood used in joinery and in furniture making relating their characteristics to their applications.
- Selects wood- derived products and other materials used in joinery and furniture making, justifying their application according to the desired result.
- Characterises wood transformation processes the relating technical specifications of the products with raw materials and resources.
- Characterises the main joinery and furniture making processes of relating them to historical, aesthetic and functional aspects.
- Recognises the construction systems used in joinery and furniture manufacture and assembly relating them to accessories and joint elements.
- Identifies environmental regulations on the use of wood, recognising quality labels and assessing their contribution.

"Construction Solutions"

The holder:

- Draws sketches of joinery and furniture elements and products providing solutions to the established requirements.
- Defines manufacture and assembly solutions for joinery and furniture making justifying the dimensions and the established techniques.
- Designs plans of joinery and furniture elements applying representation regulations and using design programmes.
- Prepares lists of materials for the manufacture and/or assembly of joinery and furniture, identifying the different parts, components and accessories.
- Represents complex templates and parts for the manufacture and assembly of joinery and furniture using the established techniques, materials and procedures.

"Basic Joinery Operations"

The holder:

- Identifies assembly and joint systems relating their features to the desired aesthetic and functional result.
- Selects wood for the manufacture of joinery elements, justifying the choice according to the machining process and the result to be obtained.
- Carries out marking out and drawing operations, interpreting graphical documentation and applying measuring techniques.
- Manufactures joinery work, machining wood with hand tools.
- Manufactures joinery work, machining wood with conventional machinery.
- Makes joinery units, adjusting their elements according to the technical documentation.
- Carries out the operating maintenance of conventional tools and machinery, applying the established procedures.
- Complies with the rules on labour risk prevention and environmental protection, identifying the associated risks and the measures and the equipment to prevent them.

“Basic furniture making Operations”

The holder:

- Selects materials for furniture making justifying the choice according to the product characteristics. Prepares templates applying marking out, cutting and finishing techniques.
- Machines furniture parts using portable machinery.
- Machines furniture parts using conventional machinery.
- Assembles furniture elements, placing and fixing their parts according to the technical documentation.
- Carries out the operational maintenance of portable and conventional machinery, applying the established procedure.
- Complies with the rules on labour risk prevention and environmental protection, identifying the associated risks and the measures and the equipment to prevent them.

“Stock Control”

The holder:

- Deals with raw materials, components and products, applying the established inspection, record and control procedures.
- Stores raw materials, components and products justifying the classification, placement and control criteria in order to ensure their preservation.
- Selects the transport means for the transport of raw materials, components and products, checking their characteristics and their functioning.
- Prepares orders of raw materials, components and products, justifying the management measures proposed in order to optimize the demand.
- Dispatches raw materials, components and products placing them according to the loading and transport means selected.

“Technical Documentation”

The holder:

- Gathers information for custom-fabrication joinery and furniture, relating the proposed needs with operating possibilities.
- Assesses manufacturing construction solutions, describing the chosen solution according to the available resources.
- Prepares graphical documentation for joinery and furniture manufacture using computer assisted design applications.
- Selects processes for joinery and furniture manufacture, justifying the operations sequence and the established resources.
- Assesses manufacture solutions for joinery and furniture products, setting budgets through spreadsheets.
- Prepares the documentation for joinery and furniture manufacturing projects, writing descriptive reports and using computer tools.

“Wood and By-products Machining”

The holder:

- Selects materials for joinery and furniture manufacture, applying optimization methods.
- Prepares the manufacture of wooden and wood derived objects and by-products, marking out parts and establishing conventional machining operations.
- Prepares conventional machining machinery, adjusting their parameters and verifying first parts.
- Obtains parts and subparts, carrying out machining-pressing operations and verifying the product quality.
- Maintains the operation of machinery and equipment, describing and carrying out cleaning, tools sharpening and parts replacement operations.
- Complies with the rules on labour risk prevention and environmental protection, identifying the associated risks and the measures and the equipment to prevent them.

“Machining With Computer Numerical Controlled Machine Tools in Joinery and Cabinetmaking”

The holder:

- Prepares numerical control programs (CNC) for wood and by-products machining, interpreting manuals and applying programming systems.
- Prepares computer numerical control (CNC) machinery, loading programs and using specific tools.
- Monitors computer numerical control (CNC) machining processes relating the program-machinery operation with the quality of the product obtained.
- Carries out the first-level maintenance of computer numerical control (CNC) machinery, interpreting manuals and applying established procedures.
- Complies with the rules on labour risk prevention and environmental protection, identifying associated risks and measures and equipment to prevent them.

"Joinery and Cabinet Assembly"

The holder:

- Organises the assembly of joinery and cabinets, relating the established sequence of operations with the selected raw materials.
- Prepares machinery, tools and accessories for the assembly of joinery and cabinets, identifying resources and verifying how they work.
- Makes joinery and cabinet units, interpreting the technical specifications of the product and applying assembly procedures.
- Assembles ironwork and accessories, interpreting technical instructions and carrying out verification and performance operations.
- Complies with the rules on labour risk prevention and environmental protection, identifying associated risks and measures and equipment to prevent them.

"Joinery and Cabinetmaking Finishings"

The holder:

- Checks superficial characteristics of the base, identifying faults and describing corrective measures.
- Prepares finishing products, interpreting the manufacture's instructions and mixing their components under safety and labour health conditions.
- Carries out decorative and protective finishings under wooden surfaces and by-products, justifying the selection of the product and applying it with hand and mechanical means.
- Monitors the drying-hardening process, identifying faults and describing corrective measures.
- Applies waste products management procedures, complying with the rules on labour risk prevention and environmental protection.

"Professional Training and Guidance"

The holder:

- Selects job opportunities, identifying the different labour integration possibilities, and lifelong learning alternatives.
- Applies teamwork strategies, assessing their effectiveness and efficiency on the achievement of the company's goals.
- Exercises rights and complies with the duties derived from labour relationships, recognising them in the different job contracts.
- Determines the protective action of the Spanish Health Service in view of the different covered eventualities, identifying the different types of assistance.
- Assesses the risks derived from his/her activity, analysing the job conditions and the risk factors present in his/her labour setting.
- Participates in the development of a risk prevention plan in small enterprises, identifying the responsibilities of all the agents involved.
- Applies protection and prevention measures, analysing risk situations in the labour setting of the Technician in Joinery and Cabinetmaking.

Business and Entrepreneurial Initiative"

The holder:

- Recognises the skills related to the entrepreneurial initiative, analysing the requirements derived from the different job positions and business activities.
- Defines the opportunity of creating a small enterprise, assessing the impact on the sphere of action and incorporating ethic values.
- Carries out the activities for the setting-up and the implementation of a company, choosing the legal structure and identifying the associated legal obligations.
- Carries out the basic administrative and financial management activities of an SME, identifying the main accounting and tax obligations and filling in documentation.

"Work Placement"

The holder:

- Identifies the structure and the organization of a company relating both to the different types of services delivered.
- Applies ethical and work habits in the development of his/her professional activity, according to the job characteristics and the procedures established by the company.
- Performs operations of receipt, storage and preservation of wooden materials, complying with safety and labour health conditions.
- Draws technical documentation of joinery and cabinetmaking applying the procedures of the company.
- Prepares materials, components, machinery and equipment of joinery and cabinetmaking establishing the conditions for the manufacture of the first part.
- Machines wood and by-products with machinery and equipment, interpreting technical documentation and applying the established procedure.

- Collaborates in the preparation and machining of wood and by-products with computer numerical control (CNC) machinery, applying established protocols.
- Participates in the assembly and finishing of joinery and cabinets , applying established procedures

RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE DIPLOMA

The Technician in Joinery and Cabinetmaking works in the industries related to the manufacture and assembly of joinery and cabinets and the application of finishings products.

The most relevant occupations or jobs are the following:

- Operator of fixed machinery for the manufacture of wooden products
- Press Operator
- Bench Operator-assembler
- Joinery Fitter-assembler
- Varnisher-lacquerer
- Finishing Area Manager

AWARD, ACCREDITATION AND LEVEL OF THE DIPLOMA

Name of the body awarding the diploma on behalf of the King of Spain: Spanish Ministry of Education or the different Autonomous Communities according to their areas of competence. The title has academic and professional validity throughout Spain.

Official duration of the education/ training leading to the diploma: 2000 hours.

Level of the diploma (national or international)

- NATIONAL: Post-Compulsory Secondary Education
- INTERNATIONAL:
  - Level 3 of the International Standard Classification of Education (ISCED3).
  - Level _____ of the European Qualifications Framework (EQF__).

Entry requirements: Holding the Certificate in Compulsory Secondary Education or holding the corresponding access test.

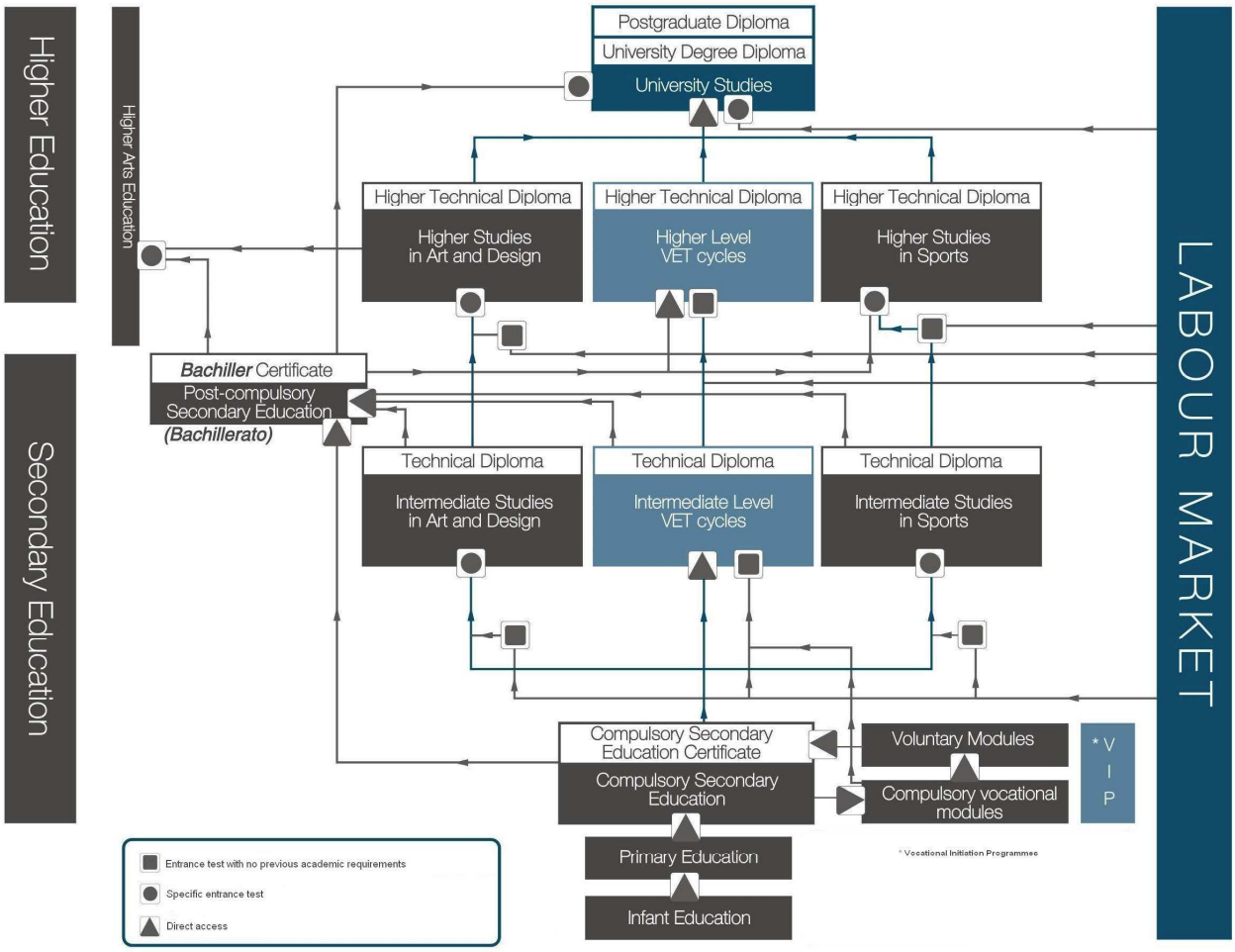
Access to next level of education/training: This diploma may provide access to Higher Technical Cycles provided that an entrance exam is passed.

Legal basis: Basic regulation according to which the diploma is established:

- Minimum teaching requirements established by the State: Royal Decree 1128/2010, of 10 September, according to which the diploma of Technician in Joinery and Cabinetmaking and its corresponding minimum teaching requirements are established.

Explanatory note: This document is designed to provide additional information about the specified diploma and does not have any legal status in itself. An Annex I may be added and will be filled in by the corresponding Autonomous Community.

INFORMATION ON THE EDUCATION SYSTEM



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ANNEX 2

Country Reports

Austria, Belgium, Greece, Italy, Romania, Spain

OPLEIDINGSCENTRUM HOUT
CENTRE DE FORMATION BOIS

Country report
WooDual project IO2

2016-10-20

Education in woodworking in BE

Facts and figures

Facts and figures of the training supply in the country (some tables with structure of qualifications, geographic distribution, number of students, courses, training centres, etc)

 # schools in Flanders:

BSO (professional education – 4 years + 1 optional: woodworking): 118

TSO (technical education – 4 years + 1 Se-n-Se optional: wood technics): 47

Se-n-Se 'wood' (technical secondary after secondary: technics for construction- and planning – 1 year): 5

Se-n-Se PPT (technical secondary after secondary: production and process technologies (multi sector) – 1 year): 4

BuSO (special education: woodworking/interior building + upholstery – 4 years): 47

Learning & Working (dual learning to achieve (parts of) professional profiles/qualifications – 1 till 3 years): 32

CVO (adult education: woodworking and upholstery): 19 + 4 for unemployed

 # pupils/students: total +/- 10.000 in Flanders (over 5 years)

BSO (professional: woodworking): +/- 5.500

TSO (technical: wood technics): +/- 2.500

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Se-n-Se 'wood' (technical secondary after secondary: technics for construction- and planning): +/- 90

Se-n-Se PPT (technical secondary after secondary: production and process technologies): +/- 30

BuSO (special education: woodworking/interior making + upholstery): +/- 1.200

Learning & Working (dual learning: in function of professional profiles/qualifications): +/- 450

CVO (adult education: woodworking and upholstery): unknown, but not oriented on labour market, in 4 centers for unemployed +/- 150 learners/year (programs during +/- 6 months)

 # students doing practical work in firms

+/- 6 week in final years, in Flanders: +/-2.000 per year!

 # schools in Wallonia/Brussels:

BSO (professional: woodworking): 83

TSO (technical: wood technics): 22

 # pupils/students: total +/- 4.000 in Flanders (over 5 years)

BSO (professional: woodworking): +/- 3.250

TSO (technical: wood technics): +/- 750

Professional Bachelor (HoGent, only 1 school in BE) (EQF level 6):

+/- 380 students over the 3 years, +/- 80 in final year

No other higher level schools (lev. 7 / 8) in BE

For further information on the BE (Flemish) education for woodworking and furniture industry, we refer to the Foster VET Mobility Project (May 2011, partners: EFBWW, CEI Bois, EFIC, UEA, HMC; pages 21 till 26 – see attachment), as the BE educational system has not changed since then.

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Trends in the provision of training, perceived quality of provision and employment results

Employment results are very good, but this also means that there is no direct need to re-invent or re-think the current educational system or the curricula.

In BE, we have +/- 15% of early school leavers, without any certification! And this is where the real needs are! Dual Learning is supposed to be THE most adapted educational pathway for these youngsters.

Here are some figures:

AFTER professional education woodworking (or extra year)

BSO 3rd grade (generation students +/- 18 years old)
Woodworking - Flanders

	woodworking	All proffessional education types
Number of learners ended their year	1.290	11.500
Number of unemployed after one year	145	1.547
Rest %	11,2%	13,5%
Number of learners without any work experience after one year	31	515
% without any work experience after one year	2,4%	4,5%

AFTER technical education woodtechnics

TSO 3rd grade (generation students +/- 18 years old)

Wood technics - Flanders

	Wood technics	All proffessional education types
Number of learners ended their year	281	10.789
Number of unemployed after one year	18	1.320

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Rest %	6,4%	12,2%
Number of learners without any work experience after one year	5	488
% without any work experience after one year	1,8%	4,5%

AFTER learning and working / dual learning

DBSO & Leertijd (generation students from 16 till 19 years old)

Wood – Flanders

	woodworking	All proffessional education types
Number of learners ended their year	180	1.614
Number of unemployed after one year	24	447
Rest %	13,3%	27,7%
Number of learners without any work experience after one year	4	93
% without any work experience after one year	2,2%	5,8%

The figures for the Walloon Region and Brussels are in the same order (%).

Perceived quantitative and qualitative challenges (with a non-exclusive focus on the three qualifications)

Qualitative challenge:

Professional education in BE is '**woodworking**', with the possibility of an extra year of specialization in a professional qualification (3rd year of 3rd grade), as interior builder, wooden frames and doors makers, upholstery …

The CNC part is an integrated part of all curricula in BE professional education! Fear for 'small' educational pathways versus employability!

Also other (new) techniques and technologies are due to be teached integrated with the 'normal' curriculum. There could be a problem with Dual Learning as theory and practice will be separated more and the content of the learning outcomes isn't any more integrated.

On the other hand, invetsing in performant machinery and up-to-date / state of the art production lines / machinery is not possible for all schools, so there are possibilities to introduce Dual learning for these parts of the curriculum, that cannot be teached within the schools. But this needs a very strong collaboration between schools, teachers and the firms and needs to have a very strict follow-up to guarantee the quality of the Dual Learning (parts).

Maybe more regional inter-schools collaboration is another possible solution (*remark: in BE we have 4 educational networks, each with their own schools, pedagogical objectives etc…*)

See also next question.

Quantitative challenge:

Very large number of students/learners in woodworking education versus woodworking and furniture sector that is declining since years. This means that for dual learning almost each company/firm needs to have one student/learner!

See also next question.

For further information on the profiles of Upholster and of the Cabinet Maker, we refer to the Bolster Up Project (May 2011, EU social partners for Woodworking and Furniture industry: EFBWW, EFIC, UEA), where for these occupational and professional profiles of Upholsterer and Cabinet maker EU core profiles have been developed. In the project description and handbook,

these qualitative challenges and the quantitative challenges have been elaborated for the different partner countries in this project.

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The role attributed to dual learning (apprenticeship, alternance training, etc.)

Becomes more and important!

In Flanders and in Wallonia/Brussels there are new governmental initiatives to promote Dual Learning and to improve the quality of this learning pathway. Up until now, this dual learning pathway was often for youngster that were 'nearly' school dropouts, so they did not reach a very high qualification.

Another problem was that through dual learning system, the learners could not achieve a diploma, but only a lesser certificate, with no access possibilities to higher education. For some years now, they can achieve, if they want to, a similar diploma as through full time educational/school pathway, with the possibility to study further in higher education. Unfortunately, the dual learners were not the right 'profiles' to do so.

So as from 01/09/2016 on, the Flemish government experiment with a dual learning system, integrated in the full time school pathways, where the learners have the choice to choose full time at school or dual learning, with the same outcomes and certification/diplomas.

There are some remarks on this new system: in the Belgian context of (very) small enterprises, it is rather impossible to receive lots of youngster in woodworking on the workplaces. This system seems to be more adapted to big and medium size enterprises (> 100 personnel). The current experiment has to clarify some of these objections.

Furthermore it looks like the schools are more interested in more workplace based (short) training periods than a real dual learning system. They are concerned that the current 'large' woodworking education will be 'limited' to only a very small professional qualification or profile, and this would be negative on the employment rates afterwards.

See also previous question.

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Benefits and difficulties associated to international mobility

The main problem why schools don't attempt to introduce international mobility is the language problem. In professional education, but also in the technical educational system, the foreign languages are such a short and limited part in the curriculum, that there is very often, if not always, a big problem with the knowledge and practical use of a foreign language, yes, either with the other national language (French in Flanders and Dutch in Walloon Region and Brussels)!

Therefor the schools, who are interested in international mobility, look at The Netherlands or France, so the language is not an issue any more. This means that the innovation and cultural differences are so limited or nearly un-existing, that there is not always a real need for this international mobility.

Another issue is the cost of international mobility: could these costs not be used better for 'inland' cooperation?

Remark: for a good international mobility, we should first consider the higher level education for woodworking (technical TSO, bachelors, Se-n-Se…). The organization for these groups would be less difficult and can provide a good starting point to expand to the professional education (BSO)

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Other recommendations collected from training providers and relevant stakeholders.

More collaboration between school networks, government, private, sectoral partners… is needed!

Furniture 'industry' is almost gone in BE, this place is now taken by the 'interior builders', who makes the entire interior furniture 'tailor made'.

The training and education of the teachers is still 'old fashioned' and too much centered on pedagogical issues and not enough on new technics, new technologies and innovation in woodworking and furniture.

The professional profiles and qualifications are made by the labourmarket partners (sectoral partners) and therefore not directly ready to implement in education, though this has to be done more often.

See also previous questions!

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WOODUAL

OPEN STUDY AND ANALYSIS ON PROFESSIONAL QUALIFICATIONS AND LEARNING SYSTEMS IN THE WOOD AND FURNITURE SECTOR

COUNTRY REPORT

for AUSTRIA

Delivered by BFI OÖ, Eva Mittendorfer

Linz, November 2016

Introduction

"The VET sector plays a major role in the **Austrian education landscape**. This is shown, on the one hand, by the high attractiveness of VET programmes for young people: some 80% of all pupils who have completed compulsory schooling opt for a VET path. On the other hand, the major significance of VET also manifests itself in the diversity of programme. A pronounced differentiation both in the school-based and in the dual VET sector ensures that every young person is able to optimally develop his or her strengths and talents.
The success of the Austrian VET system is also reflected in the low youth unemployment rate and the international recognition of Austrian skilled workers" (Tritscher-Archan and Nowak, 2011).

VET Schools and Higher Colleges in Austria

HTTPS://WWW.ABC.BERUFSBILDENDESCHULEN.AT/VET-SCHOOLS-AND-HIGHER-COLLEGES-IN-AUSTRIA/

This website contains a database in order to find **technical and vocational schools and higher vocational colleges in upper secondary education** in Austria – only in German. It is a project by the Austrian Federal Ministry of Education, DG for Technical and Vocational Education and Training; in co-operation with students, teachers and guidance counsellors.
Schools and Higher Colleges – in VET upper secondary education – in Austria provide technical and/or vocational training from the ninth school year, in addition to a broad general education. VET schools and higher colleges comprise:

- Part-time Vocational Schools for Apprentices
- Schools and Colleges of Engineering, Arts and Crafts
- Schools and Colleges of Business Administration
- Schools and Colleges of Management and Services Industries
- Schools and Colleges of Tourism
- Schools and Colleges of Fashion, Colleges of Art and Design

- Schools of Social Occupations
- Colleges of Agriculture and Forestry
- Nursery Teacher Training Colleges and Colleges of Social Pedagogy

including special courses and pilot projects. Many of them are provided for people under employment.

Duration of schools for vocational education (ISCED 3)
in general: 3-year course or 4-year course, the final exam is the *Abschlussprüfung* that enables to professional qualifications; some schools offer one-year and two-year courses (from ninth school year).
German: Fachschule, Handelsschule

Duration of colleges for higher vocational education (ISCED 3/5)

- five year course; the final exam is the *Reife- und Diplomprüfung* (Reifeprüfung and VET Diploma) that opens up access to tertiary education and also to regulated professional activities.
- 4th to 5th grade of this programme as well as the educational achievement are ISCED 550
- German: Höherere Lehranstalt; Bildungsanstalt, Handelsakademie

Other VET school types

- Post-secondary Courses (ISCED 550), 4 – 6 semester; German: Kolleg
- Add-on Courses (ISCED 550), 6 semester; German: Aufbaulehrgang
- Foreperson and Master Craftsperson Courses (ISCED 550), 4 – 6 semester; German: Werkmeisterschule,

Pro Mobility

Platforms for the Promotion and Support of Qualifying Mobility in IVET

The objective of Pro Mobility was to encourage qualifying mobility (= longer-term mobility stays aiming to acquire specialist competences which are recognised as integral parts of the qualification in the home country) as

part of the internationalisation strategy of initial vocational education and training. Two platforms served to support the project objective: the stakeholder platform, in which representatives of central vocational training institutions in all countries participating in the project formed a network in order to raise awareness of the idea of qualifying mobility, and a virtual platform for information exchange. Within the framework of this project, experiences were collected on the basis of longer-term prototype exchanges; these experiences were used to prepare a "Mobility Toolkit".

Contact: Sabine Tritscher-Archan

Project duration: 2006 - 2008

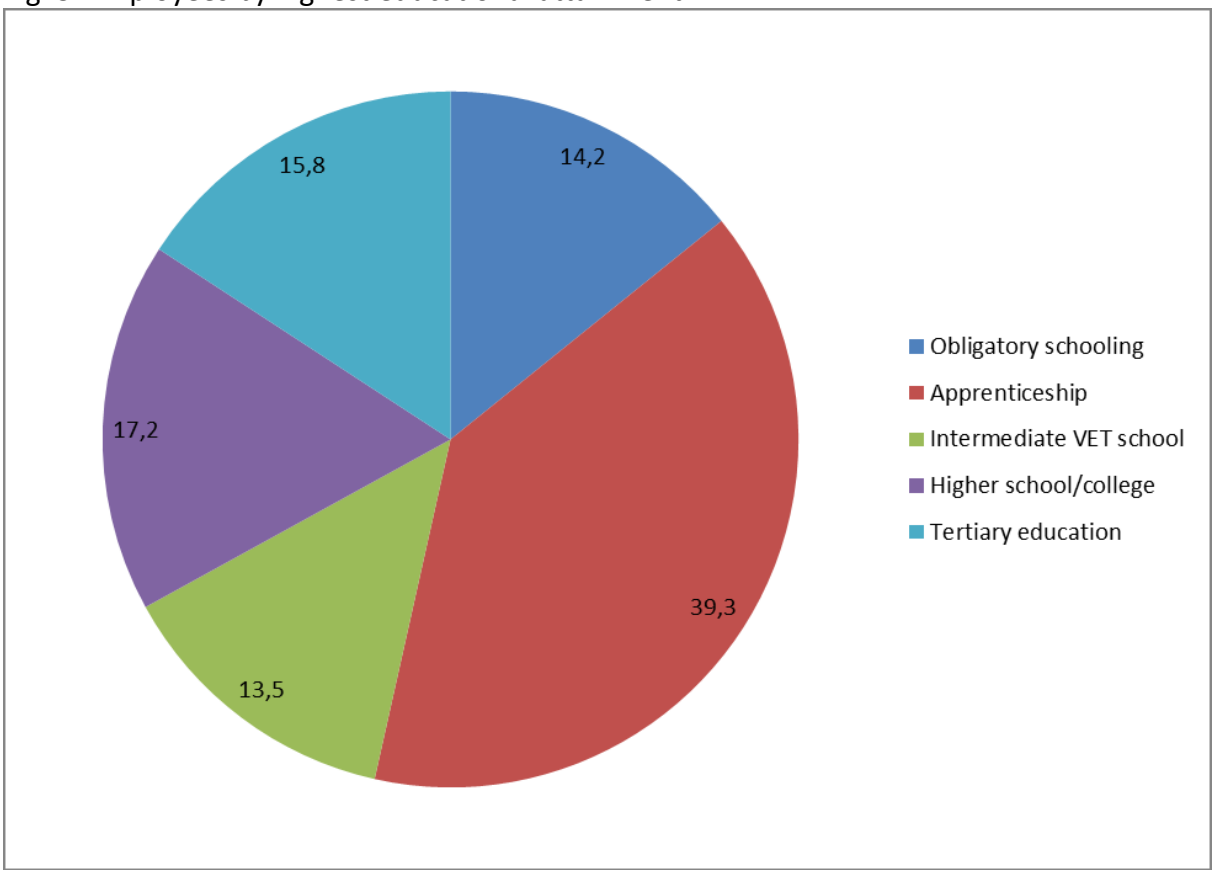
Link: www.pro-mobility.net

Labour market structure and development – skills levels of the population

The **population's educational attainment** among those aged 25 to 64 has risen sharply in recent decades The share of this population group whose highest qualification is compulsory schooling declined sharply between 1981 and 2012, from 46.0% to 19.1%. Pronounced increases can be observed in programmes above the lower secondary level, however.

When analysing the **employees by highest educational attainment**, it can be seen that almost 40% of them have completed an apprenticeship as their highest completed programme (cf. Fig. 5). A share of 17.2% has completed a school which leads to the upper secondary school-leaving certificate and about 16% a university-level programme.

Fig. 5: Employees by highest educational attainment



Source: AK Wien (retrieved on 16.6.2015)

There are clear connections between **unemployment rates** and the **highest completed programme.** Only 3.5% of the workforce with a tertiary qualification were affected by unemployment in 2013. Among those who have not completed any programme higher than compulsory schooling, however, the unemployment rate was 10.0%. People with a certificate from academic secondary school were also more frequently affected by unemployment (6.9%) than holders of a certificate from a college for higher vocational education (4.0%), for example.

According to Statistics Austria, **unemployment among 15- to 24-year-olds** was at 10.3% at the end of 2014. In the European comparison, Austria boasts the **second lowest youth unemployment rate** within the EU (after Germany). The EU-28 average value was 21.9%. This comparatively low value is mainly due to the wide range of vocational programmes at the upper secondary level, which is well accepted by the young people with their different interests and talents. In addition, a large number of youth labour market policy programmes and projects exist which are provided by the public sector (such as the Training Guarantee up to the age of 18) and can benefit young people who do not find a place at school or in an apprenticeship.
(Tritscher-Archan, 2015)

Political and social context of the apprenticeship system competences (federal, regional)

The **governance structure** of the apprenticeship training system involves a large number of actors. The tasks and competences in both, the company-based part as well as the school-based part, are divided among several bodies on federal, regional and local levels. The social partners, which fulfil key tasks both regarding contents and administration of apprenticeship training, play a particularly important role.

The image of VET and apprenticeship in society

At the upper secondary level, the Austrian education system is characterised by a **well developed and differentiated VET system**, which consists of full-time VET schools (schools for intermediate vocational education [BMS] and colleges for higher vocational education [BHS]) and dual training (apprenticeships). Around 80% of every age group in the tenth school year opt for a VET programme, with about half attending a school and half an apprenticeship (cf. The Austrian social partners).
Basically, apprenticeship training meets with **wide acceptance** in all economic sectors, particularly in the crafts and trades sector, but also in wholesale and retail and the tourism industry. The importance of apprenticeship training can be seen in particular by the fact that almost 40% of the Austrian workforce boast an apprenticeship diploma as their highest educational attainment (cf. AK Wien).
In recent decades, apprenticeship training has become more and more popular due to the educational expansion. Although this is an encouraging development, it has created a number of **challenges** as well. The young people who take up an apprenticeship have very heterogeneous requirements. Many of them do not have sufficient basic skills after completing compulsory schooling, so they cannot find an apprenticeship post at a company. This fact has resulted in a differentiation of apprenticeship programmes in recent years: Alongside “regular” apprenticeships, integrative/inclusive VET programmes were introduced in 2003 to enable young people with learning difficulties to prolong their apprenticeship period or acquire partial qualifications. In addition, to ensure that apprenticeship remains an attractive VET track, the possibility was created of obtaining both a vocational qualification and the higher education entrance qualification in one combined scheme (termed “Berufsmatura”).

Apprentices, companies and VET schools involved in apprenticeship training

The Apprenticeship Statistics, which are published every year by the Austrian Federal Economic Chamber, include key statistical data as at the 31 December of the respective previous year. For 2014 the following **key data** can be given:

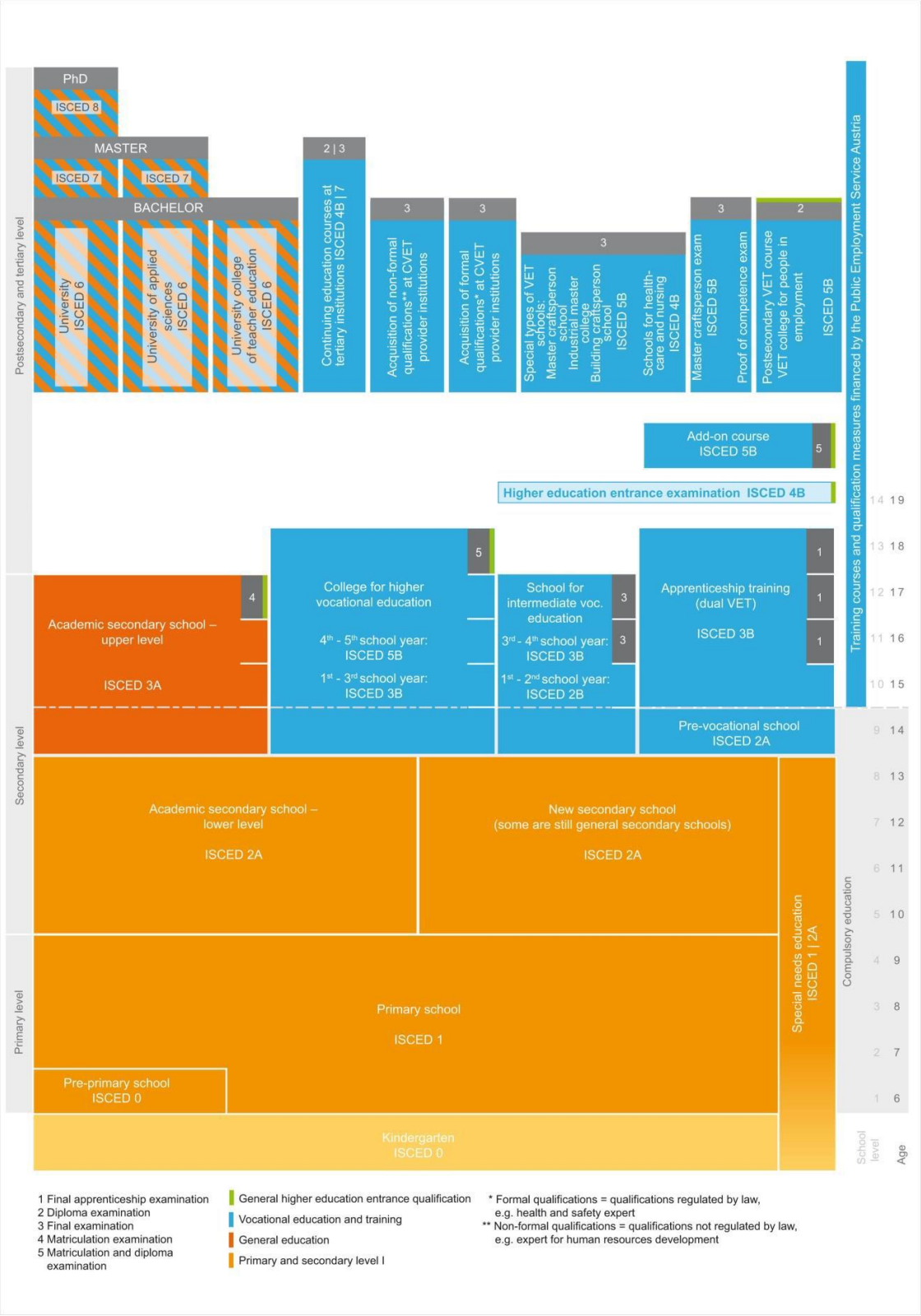
- As at 31.12.2014 there were **115,068 apprentices in Austria**. This corresponds to a decline of 4.6% compared to the previous year.
- Almost **two thirds** of all apprentices in 2014 were **male** (75,819), **one third female** (39,249).
- Overall there were **31,878 training companies**. This means there are 1,717 fewer than in the period of comparison of the previous year.
- **Distribution by economic sectors**: Most apprentices are trained in the crafts and trades sector (42.7%), followed by the wholesale and retail sector (14.6%) and industry (13.9%).
- Clear gender-specific trends can be found regarding the **choice of apprenticeship occupations**: Young women still prefer typical careers for women. Almost half of all female apprentices are trained in retail trade and the occupations office assistant and hairdresser. The three most popular apprenticeships among young men are metal technology with 11,352, followed by electrical engineering with 8,725 and motor vehicle engineering with 7,236 male apprentices.
- Although there are some 200 apprenticeships (cf. the List of Apprenticeships), young people mainly choose few of them: More than two thirds of all female apprentices – 26,552 in absolute figures – are trained in the **ten most popular apprenticeships**. Among young men, there is not quite the same concentration on the main apprenticeships: More than half of all male apprentices – so a total of 48,775 – are trained in the ten most popular occupations. (Tritscher-Archan, 2015)

National Qualifications Framework, allocation of VET qualifications

The implementation of a **National Qualifications Framework** (NQF) has been a key objective of educational policy for some years. In 2014/15 an **NQF Act** has been drafted, which will be appraised as early as in the summer of 2015. This law will then enter into force on 1 January 2016. At the same time, this will be the official starting signal for the allocation of qualifications to one of the eight levels.

To date **qualifications have not yet been allocated officially**, for which a formal application to the responsible NQF bodies will be required. In discussions, however, most experts advocate allocation of apprenticeship diplomas to Level 4. It is not planned to allocate these diplomas differentiated by the length of training (such as two-year apprenticeships to Level 3, three- and four-year periods to Level 4) – unless substantial arguments for such allocations are found when implementing learning outcome orientation.

Fig. 8: The Austrian education system



Source: ibw

Overview pathways within the VET system

Learners at the **upper secondary level** have the choice between two pre-professional school types and three VET programmes (cf. Fig. 8):

- pre-vocational school (PTS), one-year pre-professional school;
- schools for intermediate vocational education (BMS), one- and two-year pre-professional schools and also three- and four-year VET schools with various area specialisations (business, technology, agriculture, social affairs, tourism, etc.);
- colleges for higher vocational education (BHS), five-year VET colleges which lead to the upper secondary school-leaving certificate with various area specialisations (business, technology, fashion, design, agriculture, tourism, kindergarten teacher training, etc.);
- dual VET (apprenticeship/apprenticeship training), from the tenth grade, around 200 two- to four-year apprenticeship occupations in various area specialisations (construction, electrical, information technology, wholesale and retail trade, etc.).

This diversity of pathways reveals the **special importance** of VET in Austria. Another indication of the great importance of VET is its attractiveness, which manifests itself in high participant figures (cf. The image of VET and apprenticeship in society). The three VET programmes can be characterised as follows:

- Graduates of a **three- and four-year BMS** acquire qualifications entitling them to immediately exercise relevant occupations and giving them access to specific regulated professional activities. Following acquisition of the *Berufsreifeprüfung* certificate (which provides general access to higher education for graduates of specific VET programmes) or attendance of add-on courses, graduates are entitled to enrol in tertiary programmes.
- **Five-year BHS** (which is offered both as a day form and evening form for people in employment) provides in-depth general education and high-quality specialist training which combines theory and practice. BHS pupils finish this pathway with a matriculation and diploma exam, granting them general access to the higher education sector, a professional qualification for senior occupations and access to regulated professions. BHS also provides the basis for later self-employment. A reduction of the study duration at a university of applied sciences can be achieved based on a specialist qualification obtained at a BHS.
- **Dual VET** takes place at two places of learning: 80% of the training period takes place at a training company, 20% at a subject-specific part-time vocational school, attendance of which is compulsory. Graduates of the apprenticeship-leave exam in one of currently 200 offered apprenticeship occupations acquire a full professional qualification. Depending on the occupation, training lasts between two and four years, but in most cases three years. After completing an apprenticeship, graduates have many educational options available (such as the acquisition of the master craftsperson qualification). The *Berufsreifeprüfung* certificate additionally entitles them to attend tertiary educational establishments.

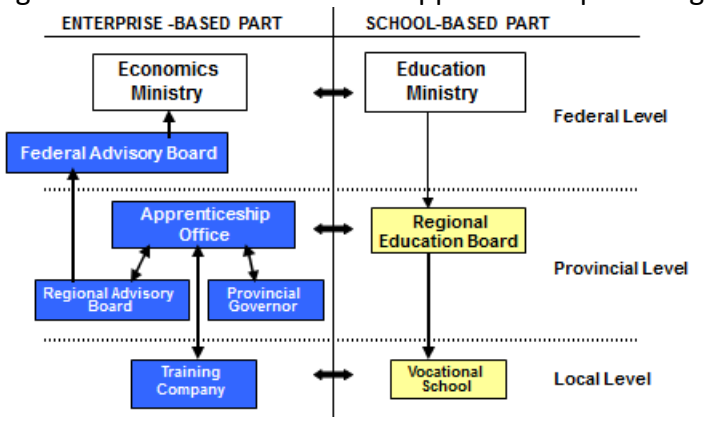
ReferNet “VET in Europe – Country Report Austria” (2014)

Governance of VET and regulatory framework

Governance

As shown in the following figure, a large number of institutions form part of the governance structure of apprenticeship training:

Fig. 9: Governance structure of apprenticeship training



Source: ibw

National standards – matching supply and demand

The **content of training regulations** is prepared by the Federal Advisory Board on Apprenticeship (BBAB, cf. 2.1) or the Ministry of Economy. They are supported in this work by experts from the respective sector as well as by ibw Austria – Research & Development. The following overview shows the procedures connected with the introduction of a new apprenticeship:

1. Preparation

- The Ministry of Economy, the social partners or companies take the initiative for creating or modernising an apprenticeship
- Consideration of European developments as well as solutions introduced in other countries
- Clarification of the basic framework by the Ministry of Economy and the social partners

2. Elaboration of training regulation and framework curriculum

- Preparation of draft training regulations by education research institute
- Expert discussions in the BBAB
- Submission of expert opinions of the BBAB to the Ministry of Economy
- Development of a framework curriculum which corresponds to the training regulation by an expert group under the leadership of the Education Ministry
- Preparation of drafts for nationwide review

3. Issuing of regulations

- Involvement of all stakeholders in a consultation and review process

- Evaluation of opinions and comments

- Issuing of training regulations by the Ministry of Economy and of framework curricula by the Education Ministry

4. Follow-up measures

- Creation of supportive manuals and additional material by the companies' professional organisation, partly supported by the employees' representation or VET institutes to support training companies

- Provision of information to training companies by apprenticeship offices

- Training of trainers in companies and of teachers in part-time vocational schools

- Training of examiners of apprenticeship-leave examinations

- Accompanying evaluation

Supply and demand

Apprenticeship training is largely **demand-driven**. Young people apply directly to a company that offers an apprenticeship post in their chosen occupation. Apprenticeship places are offered in occupations that the company has identified as required for future operations and growth. As a result, apprenticeship training ensures a good match with future skills needs.
However, supply and demand **do not always match**: Not all young people find an apprenticeship post in an occupation they are interested in. On the other hand, there are companies that do not succeed in filling their vacant apprenticeship posts because there are not enough applicants. There are various reasons for this mismatch: Even though there are around 200 apprenticeships (cf. 2.5), young people tend to select only a certain range of apprentices (cf. 1.2). Vocational guidance and counselling should counteract this trend. Moreover, apprentices are often not willing to travel too far to their training company. While there are vacant apprenticeship posts e.g. in the tourism sector in the west of Austria, young people in the east search for a post in this field.

Quality assurance

There are quality assurance mechanisms at all stages of the lifecycle of an apprenticeship qualification (cf. website). A key element of quality assurance is the **involvement of businesses and social partners** in order to meet the requirements of the labour market.

The **main quality assurance mechanisms** are:

- Development of new and modernisation of existing apprenticeships (cf. 2.4): The continual adaptation of apprenticeship occupations to economic and technological developments ensures the lasting attractiveness and quality of apprenticeship training. Related initiatives are most often launched by the affected sectors and the Ministry of Economy or the social partners. All the interest groups concerned (representations of interest of employers and employees) and the responsible ministries (Ministries of Economy and Education) are involved in the development of new apprenticeships. Research support is provided by *Institut für Bildungsforschung der Wirtschaft* (ibw, Research and Development in VET).

- Accreditation procedure for training companies (cf. 2.6): Every company which wants to train apprentices needs to go through an accreditation procedure. For this purpose, the company submits an application for determination of its suitability for apprenticeship training to the respective competent Apprenticeship Office. In collaboration with the Chamber of Labour, this office subsequently examines whether the company meets the legal and company-specific prerequisites for apprenticeship training.

VET and CVET of trainers: IVET trainers who are in charge of training apprentices need to furnish a relevant qualification, which not only comprises subject-related competences in the apprenticeship concerned but also know-how concerning vocational pedagogy and law. The IVET trainer qualification is acquired by completing a trainer examination and/or attending a course. This compulsory qualification is complemented by a wide range of continuing training options
(such as companies' in-house CVET programmes for IVET trainers, programmes provided by adult learning institutions, trainer colleges and trainer forums).

- Standards for the apprenticeship-leave examination (cf. 2.4) and the clearing office for the apprenticeship-leave exam: This exam is organised by the Apprenticeship Offices. It is taken before an exam committee. This ensures that the training and its validation are separated, which makes an essential contribution to objectivity and therefore quality assurance. The clearing office for the apprenticeship-leave exam ensures quality assurance throughout Austria for the tasks which the candidates need to carry out in the exam. The clearing office is set up in the Ministry of Economy and supervised by ibw. Its tasks include: safeguarding a uniform quality standard by checking the tasks, assessment guidelines and solution options to see if they comply with the respective examination regulation, subject-specific correctness, practical relevance, and corresponding didactic quality.

- Exam preparation for apprentices and examiners: For apprentices, this preparation comprises preparatory courses, which are provided by various training institutions, and the learning materials drawn up by ibw. For examiners there exists the option of completing certified training programmes (the graduates of which are awarded the title "examiners for the apprenticeship-leave examination"). The examiner manuals of ibw offer examiners occupation-specific guidelines on how to design oral exams.

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Dual training system in Germany

GENERAL INFORMATION

This system is called „dual“ because it takes place at two locations: apprentices learn the practical foundations in a company, and the theory in vocational school.
Even students with certificates of aptitude for higher education often decide on vocational training. One reason for this is the good reputation of the German vocational training system. Many occupations that require a degree in other countries are learned in Germany through vocational training.
Within the German dual training system it is also possible to enrol in a dual undergraduate or graduate study programme.

JOB PROFILES

Training is always coupled to a specific occupation: there are about 350 recognised training occupations.

HOW IT WORKS

Apprentices play a joint role in the dual system: they are students and employees at the same time. They learn the practical side of the occupation by working in the company under the supervision of experienced colleagues. On the other hand, they attend vocational school where they learn the theoretical foundations. One third of the curriculum consists of general subjects, such as German, English or social studies. Two thirds of the curriculum is tailored to the occupation.
In the dual system there are two time-planning-models: the block model (*Blockmodell*) and the week model (*Wochenmodell*). According to the block model, the course is organised in three-months-blocks, each of them is dedicated to the practical training in the company or to the theoretical lessons at the vocational school. According to the week model, within the same week the apprentices spent three days in the company and two-three days at the vocational school.

ADMISSION REQUIREMENTS

In principle, the dual training system is open to all. Formally, a school-leaving certificate is not required at all. However, in practice, the situation on the training market looks different. Although there has been a clear increase in the number of training places in the last four to five years, school-leavers with higher leaving certificates still have better chances of getting the best training places.. Pupils at lower secondary school have the fewest opportunities for choice on the training market, but can score with good grades.
Banks, insurance companies and tax consultants recruit well over half of their trainees from applicants with university entrance qualifications. These qualifications are usually also required for demanding technical occupations in informatics. And in occupations that young people favour as well, for example, in events technology or media design, the majority of trainees have university entrance qualifications. Apprenticeships in the commercial and electrical sectors are most frequently given to applicants with intermediate school-leaving certificates. Baker, hairdresser, or painter and decorator, are occupations in which applicants with lower secondary school-leaving certificates have good chances.

DUAL
FORMAZIONE PROFESSIONALE

DURATION

Vocational training takes two to three and a half years, depending on the occupation. With appropriate preparatory training, or particularly good achievements, the duration can be shortened in consultation with the company providing the training and the vocational school.

FINAL EXAMINATION AND AWARDED QUALIFICATION

Apprentices sit the final examinations before the Chamber of Industry, Commerce or Crafts that is responsible for their occupational group. These Chambers also award occupational permits.

RETRIBUTION

Payment increases with each training year, and on average amounts to about one third of the starting pay for a trained skilled worker. Actual earnings depend in particular on collective wage agreements. These are negotiated by employee and employer associations and regulate working hours and pay. Wages differ depending on the occupation or region.

LEGAL BASIS

The Vocational Training Act regulates the rights and obligations that the company providing the training and apprentices both have. The Chambers of Industry, Commerce or Crafts have a say in vocational training and examination standards. The content and course of examinations are regulated nationally on a uniform basis.
Apprentices conclude an apprenticeship contract with the company.

BENFITS FOR APPRENTICES

In Germany, a vocational qualification is regarded as the foundation stone for a successful working life. Even if, later on, people no longer work in the occupation they originally learned, the training is decisive for their further chances on the employment market. Because it is also regarded as proof of the intellectual and social skills that are necessary for survival in working life.
One great advantage of the dual training system is its closeness to the employment market. The aim is to train qualified skilled workers who bring with them the necessary competences and qualifications for a changing world of employment. The high proportion of practical training ensures that the acquired skills are actually in demand in the world of work. For many, vocational training pay plays an important role, because the thought of being financially independent of parents - at least partially - is appealing.

BENEFITS FOR COMPANIES

- firms can benefit from the apprentices' productive contribution
- firms can retain the apprentices after training and ensure the skills of future employees
- firm can use the training period to observe the apprentices and choose the best for retention
- firms can expect that clients, potential employees, and suppliers have a better image of the firm when they train.

BENEFITS FOR SOCIETY

The dual training system has proved to be a good solution in improving the youth employment rate, since apprentices in Germany have good chances to stay at the company where they were trained (in average 61 % of the trained apprentices).

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

WOODUAL

INTELLECTUAL OUTPUT 2

"Open study and analysis on professional qualifications and learning systems in the wood sector"

Romania Report – FiaTest

1. Facts and figures of the training supply in the country (some tables with structure of qualifications, geographic distribution, number of students, courses, training centres, etc.)

1.1 Structure of qualifications

In Romania, an occupation is recognized only if it is mentioned in the Classification of Occupations in Romania and recorded in the National Registry of Qualifications.

The National Qualification Framework encompasses a lot of occupational titles in the field of Wood Industry specific occupations, as follows:

7 Craft Workers and Related Trades Workers (major group)

...

75 Craft Workers in the Food Industry, Woodworking Industry and Textile and Clothing Industry and Related Trades Workers (sub-major group)

...

752 Craft Workers in Wood Treatment and Related Trades Workers (minor group)

...

7522 Ebenistes (cabinet makers) and similar workers (basic group) – with the following occupations:

752201 Universal cabinet maker

752202 Wooden vehicle bodies maker (wainwright)

752203 Manual / artisan cabinet maker

752205 Wooden box assembler

752206 Wooden products maker and assembler (carpenter)

752207 Wooden barrel elements maker-bender-assembler (cooper)

752208 Manual pressing and glueing joiner

752210 Manual cabinet maker-fitter-assembler

752211 Manual veneer joiner

752213 Sanding and polishing worker

752214 Surface varnishing preparator

752218 Woodworking industry-specific chemicals preparator

752219 Wooden products restaurator

752221 Wooden window and door maker (wooden window frames and door carpenter)

…

7523 Tuners and operators of wood processing machines (basic group) - with the following occupations:

752317 Dimension cutting wood machinist (machinist for cutting to dimension wooden raw materials)

752318 Wood planning machines operator

752319 Wood milling and drilling machines operator

752320 Wood turning machines operator

752321 Wood grinding and sanding machines operator

752328 Woodworking CNC machine tools operator

...

753 Craft workers in the textile and clothes industry (minor group)

7534 Upholsterers and assimilated workers (ISCO-88) (basic group) - with the following occupations:

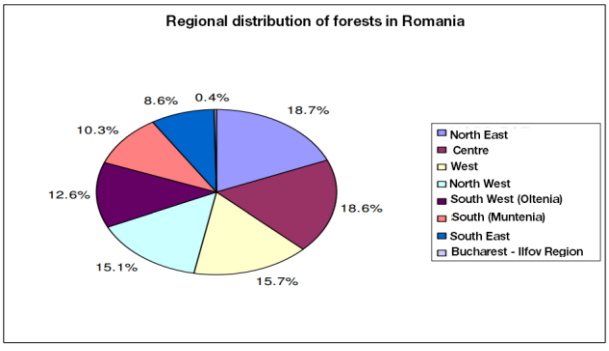
753401 Upholsterer)

753402 Mattresses maker

753403 Duvet maker

1.2 Geographic distribution

According to the U.N. FAO, 28.6% or about 6,500,000 ha of Romania is forested. The largest areas covered by forests are in the Centre and North East regions of the country, as shown bellow:



In these two regions we find the two Romanian Higher Education institutes in the field:

- Transilvania University of Brasov, the only faculty in Romania with the wood engineering profile;

- The Faculty of Forestry from ”Stefan cel Mare” University, Suceava, where the students are trained to become forest engineers with complex qualifications.

Namely, Transilvania University Brasov - Faculty of Wood Engineering provides 6 study programmes:

- Wood Products Engineering (Bachelor study programme);
- Wood Processing Engineering (Bachelor study programme);
- Forestry and Engineering Management (Bachelor study programme);
- Wood Processing Engineering (part-time education, Bachelor study programme);
- Advanced Wooden Structures and Innovative Technologies (Master study programme);
- Eco-Design of Furniture and Restoration (Master study programme).

The Faculty of Forestry Suceava provides the following study programs:

- Forestry (4-years BSc degree),
- Ecology and Environmental Protection (3-years BSc degree);
- degree and also PhD programs.
- Biodiversity Conservation and Forest Certification
- Management of Wood Harvesting and Wood Processing Activities (1.5-year Master study programme);

On the other hand, around 80 Upper secondary schools which train specialists in wood processing, as well as 250 Adult Learning companies (accredited by Romanian National Qualification Agency) are found in all country.

1.3 VET in Romania

Initial vocational education and training (IVET) is provided at both upper secondary and post-secondary levels. Professional education (initial VET) comprises upper secondary vocational education, the technological route of upper secondary school and post-secondary education.

General compulsory education includes primary education and lower secondary education. After completing lower secondary education, learners can continue their studies at upper secondary schools or professional schools.

Upper secondary school education includes three strands that lead to baccalaureate (upper secondary leaving diploma) which represents a level 3 qualification (ISCED 3):

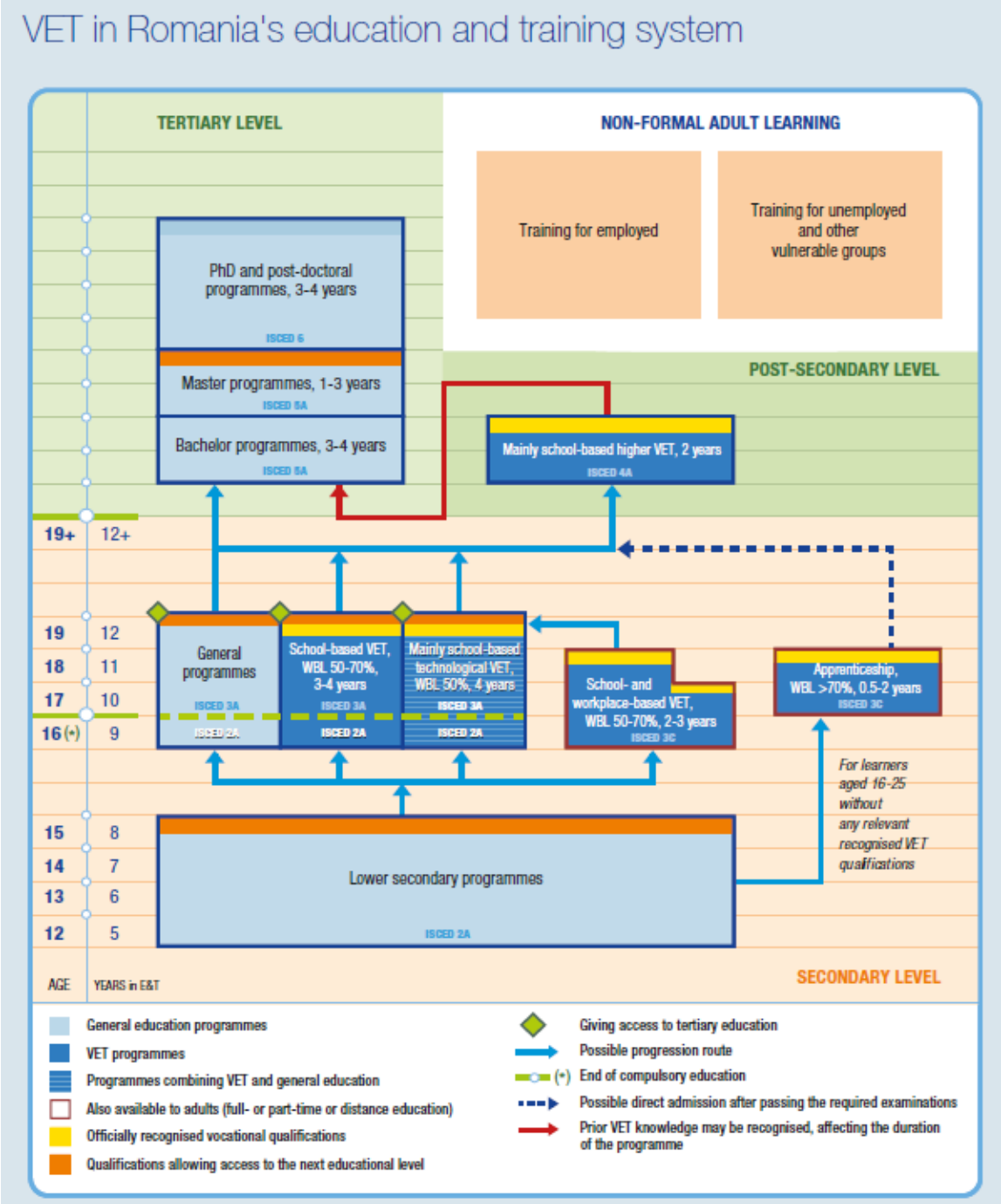
- a three-year theoretical route with two fields of study: sciences (mathematics and informatics or natural sciences) or humanities (social studies or philology);
- a three-year technological route with the following fields of study: technical (engineering, electrotechnics and electronics, mounting construction), services (trade, public catering), natural resources and environmental protection;

- a three-year vocational route with the following fields of study: military, theological, sports, arts and pedagogy.

Post-secondary education is included in professional and technical education and provides an opportunity for advanced vocational training for graduates of secondary schools (with or without a baccalaureate diploma).

Adult vocational training is provided by legal entities (either private or public), including vocational training centres, or individuals certified as VET providers. Adult vocational training can also be provided through work-based courses organised by employers or through internships and specialisation programmes.

During the past decade, Romania has developed a system for validation of non-formally or informally acquired skills and competences. According to specific norms adopted by the National Authority for Qualifications (ANC), procedural arrangements have been put in place to create a network of specialised providers known as validation/assessment centres.



Source: Cedefop and ReferNet Romania

The duration of vocational training depends on several factors, out of which student's age, the type of VET provider and the qualification level intended are the most important ones:

a. Training provided by a technical upper secondary school (technical high school) specialised in providing woodworking training - two pathways are available: direct pathway and progressive pathway (the so-called 'arts and trades school').

- **i.** For students enrolled in direct pathway day courses (candidates are 14-16 years old), the duration of the training is 2 years followed by an additional 720 hours practical training, while for those enrolled in direct pathway evening courses (candidates are 14+ years old) the duration of the training is 2,5 years followed by an additional 720 hours practical training.
- **ii.** For students enrolled in progressive pathway day courses (candidates are 14-16 years old) the duration of the training is 3 years (on the progressive pathway students have to complete an additional school year), while for those enrolled in progressive pathway evening courses (candidates are 14+ years old) the duration of the training is 3,5 years. No additional practical training is needed as evening courses students are usually already working in a furniture company.

For both pathways, specialized training (both theoretical and practical) is provided throughout the entire school duration according to the national curricula.

b. When training is provided by an authorized C-VET provider (i.e. adult education) the duration of students' schooling amounts to 720 or 1080 hours, according to the level of qualification (2 or 3 respectively). The training curricula is approved by the National Authority for Qualifications (ANC) (Note: ANC is also the public institution that is responsible for the accreditation of C-VET providers in general and for the accreditation of each of their vocational education courses).

1.4 Training courses

In the woodworking-specialized technical high schools, training is provided according to the national curricula. The education framework plans for technical secondary schools are part of the National Curriculum.

Education framework plans for the technical branch of the secondary education are VET standards-based and have 3 conceptual components: the 'Core Curriculum', the 'Differentiating Curriculum' and the 'Local Development Curriculum'.

While the Ministry of Education states the structure of education provided, the schools have the freedom to choose between full-time vocational school and cooperation with companies, so as to provide students the best education possible.

In other words, the education framework plans and the different directives coming from the Ministry of Education allow schools to provide for level 2 qualification education of their students:

- either full-time vocational school, all practical training being provided in schools' workshops;
- or a type of dual-system education by which students are provided part of their practical training in school's technological labs and part in companies at real work places under a school teacher and several company foremen's supervision.

In the latter case, the school signs a Partnership Agreement with a furniture company, by which school's students are allowed 'apprenticeship' (internship) in the company.

Theoretical training always takes place in school.

The 'Differentiating Curriculum' and the 'Local Development Curriculum' are made up considering the requirements of the specific VET standards (Proffesional Preparation Standard - SPP) for 'Wooden Products Manufacture' curricular field.

As for the institutions that carry out adult learning activities (authorized C-VET providers, others than technical high schools), training is both theoretical and practical. It is provided according to curricula made up by each VET provider according to the vocational training standard (SPP) or the occupational standard (SO) for each of the qualifications and approved by the National Authority for Qualifications.

Professional qualifications are certified by an official document such as Training Completion Diploma, Course Completion Certificate, accompanied by a Descriptive Supplement, which lists all of the units of competences acquired during the training period (as stated in the occupational standards or VET standards).

VET in the Romanian national education system is mostly formal training. However, the Romanian laws allow the non-formal and informal learning to be certified, provided that a formal assessment should be carried out in an authorized Competences Assessment and Certification Centre, so any individual who would like to have their competences certified should consider their competences be assessed by these centres. Specifically, according to the ANC National Register, in Romania there are 13 Assessment and Certification Centres of non-formally or informally acquired competences.

The diploma obtained as such is similar to the certificates explained earlier: Competence Certification Diploma and Descriptive Supplement.

1.5 VET governance

The Ministry of Education is the national authority for formal pre-university education (including I-VET) and higher education and is responsible for developing and/or implementing policies related to provision of training and qualifications assessment.

The Ministry of Labour is the national authority for C-VET policies. Sectoral committees are the bodies responsible for definition and validation of standards and qualifications, and in collaboration with the Ministries of Labour and Education, for C-VET policies.

The National Authority for Qualifications coordinates adult training. Social partners (employers and trade unions) have important responsibilities in continuous training at national and sectoral levels.

2. Trends in the provision of training, perceived quality of provision and employment results

There are about 80 woodworking technical high schools in Romania and they have an average of 50 young people who want to specialize in wood sector in each generation. This mean about 4500-5000 young people training in technical woodworking specialized high schools to have a career in the furniture industry.

Only 20% of them actually apply for hiring in the Romanian furniture industry (5% go on with higher education; 25% choose to find jobs in woodworking industry and 10% in Construction industry). The others look for hiring opportunities in other industries or abroad, apply for university in other fields of activity or become unemployed. County Employment Agencies (AJOFM) and the Bucharest Municipality Employment Agency are the institutions that keep evidences of unemployment in Romania.

Many of Vocational technical high schools face problems in attracting students to 'Wooden Product Manufacture' curricular field because of a false poor image of the furniture sector among young people as well as a low level of earnings in the furniture companies in Romania.

At the regional and local level, public employment services are working closely with employers to develop appropriate training courses to cater to their needs.

At the same time, wood processing companies are increasingly seeking help from specialised recruitment agencies to fill the vacancies and some of them carry out internal training activities to align the skills of the workers to the changing needs.

The number of apprentices have steadily decreased in the past years. Because the companies had to reduce the number of employees due to furniture market shrinkage, even some of the older large companies that used to train apprentices on a regular basis gave up this activity.

However, in the last years the industry has started to re-employ workers and updated statistics show the number of employees in the Romanian furniture industry reached 55.7 thousand people in January 2013, while there were 50.3 thousand people employed in the furniture companies in 2011, 67.7 thousand people in 2008 and 48.9 thousand people in 2010, so it's only natural to expect that the number of apprentices will grow in the near furniture.

The number of young people trained in the companies according to the Apprenticeship Law is very small, partly because there are only a few authorized Competence Assessment and Certification Centres in the whole country and partly because Law provisions seem not very attractive for the companies in general.

If the formal learning and the theoretical training of apprentices is being provided by a VET provider, the curricula has to encompass training modules / themes that ensure the trainees will have the opportunity to acquire necessary knowledge and skills for the job, i.e. the acquirement of the general and specific skills mentioned in the respective VET standards (SPP) or occupational standards (SO).

3. Perceived quantitative and qualitative challenges

In Romania, the furniture industry benefits from of tradition and at the moment comprises about 4000 firms, of which 100 are big companies, whilst majority of them are small and medium-sized enterprises. The main advantages of the sector are: availability of resources, low labour costs and high level of technical qualifications. The weak points are: outdated production technologies, low energy efficiency and poor environmental performance.

According to a SWOT Analysis performed by universitary specialists, the following aspects are highlighted:

STRENGHTS

- Over 90% of wood raw material and about 55% of auxiliary materials exist in Romania
- Tradition and experience in domain
- The possibility to recover the wood waste
- The diversity of products manufactured and production flexibility
- Qualified personnel with specialised skills
- Economic operators located throughout the whole country
- Reduced costs and competitive prices

WEAKNESSES

- The technological gap and low productivity
- Poor marketing strategies
- Poor distribution
- Selling products through intermediaries;
- Low level of automation;
- High Consumption

- Inadequate access infrastructure
- High bank interests
- Low level of salaries

OPPORTUNITIES

- Raw materials of good Quality
- A stable traditional market
- Possibilities of modernization and refurbishment

THREATS

- High costs and delays due to the infrastructure
- Cheap furniture imported from outside the EU
- Insufficient Brands
- External market shares lower than main competitor's
- Malfunctions registered in relations with suppliers Fluctuations of the exchange rate
- Increasing prices for raw materials

(Source: *THE FURNITURE INDUSTRY IN ROMANIA AND THE EUROPEAN UNION- A COMPARATIVE APPROACH,* article published in Revista Economica)

There is an increase in the variety of products that the Romanian companies offer to the market, most of them as a result of investment in new technologies. Although Romanian furniture industry has been mainly renowned as a supplier of solid wood furniture either in classic or rustic styles, more and more companies extended their range of products enriching them with modern furniture programmes or new interpretation of the classic and rustic styles.

As a result of this development, wood machining gained ground over handicraft and in general over manual labour. CNC machine tools also gain ground and companies become interested in hiring CNC operators, too.

However, there are companies (mainly SMEs) that still value manual labour and are not willing to give it up completely as it adds value to the final product.

As a result of the increased mobility of workers from the furniture industry to other economic sectors or to other countries and the natural decrease in the number of skilled operators, some of the companies hired unskilled workers, which are qualified most of the time by “qualification at the workplace” approach.

Another concern is the presence of bottleneck vacancies The reasons for the existence of bottleneck vacancies are diverse and fairly evenly split between lack of technical skills; lack of workplace competences and unwillingness to take on jobs in the sector due to unattractive conditions (insufficient salary or repetitive tasks).

Another challenge consists in aligning the educational offer of VET with the demands of the labour market, which aims at identifying the skills gap and ensure that VET programmes are able to generate sufficient skills to match the needs of employers by 2020.

4. The role attributed to Dual Learning

Since 2003, the Romanian Labour Code includes provisions for apprenticeship. Apprenticeship contracts have been defined as a special type of labour contract involving both work as well as vocational training at the workplace.

The Apprenticeship Law 279/2005, revised in 2013, has seen rather slow application, partially because enterprises willing to apply for apprenticeship schemes were initially required to provide several apprenticeship foremen certified for their formally-acquired knowledge and skills, apart from having professional experience and expertise.

When training is undertaken according to the provisions of the Apprenticeship Law (Law 279/2005), the apprentice and the company sign an Apprenticeship Agreement. The duration of the apprenticeship is a mandatory element of the Apprenticeship Agreement and legally it can be 1, 2 or 3 years, depending on the level of qualification intended. For level 2 occupations, the duration of apprenticeship (as stated in the Apprenticeship Law) for level 2 qualifications is 2 years. Both theoretical and practical training are included within the normal working time of the apprentice. In case the theoretical training of apprentices is provided by a VET provider it takes at least 240 hours.

The age of the persons which could be hired as apprentices is between 16-25 years old. The employers which want to conclude apprenticeship agreements at work places must be authorized by the Ministry of Labor. The final evaluation and the certification of vocational training is organized by the employer and is made according with the legal regulations in place related to vocational training for adults.

Very often furniture companies in Romania prefer to train apprentices by their own. Such a non-formal learning process and apprenticeship do not necessary lead to a certification, but companies recognize internally the qualification of their workers. Both knowledge and skills acquired during apprenticeship refer to the specific technology used in the company and the products made in that company. The duration of such an apprenticeship can vary from 1 to 2 years for each of the two occupations. There is no official curricula for apprenticeship in this case. This kind of apprenticeship is usually called 'qualification at the work place'.

Within the companies training is carried out under mandatory supervision of a trainer called 'apprentice's supervisor' according to the Apprenticeship Law's provisions.

If a certification of aquired competences is needed, the final examination is administered by a special Assessment Commission appointed by the National Authority for Qualifications (ANC) in a Competences Assessment and Certification Centre.

It is difficult to know the accurate number of apprentices that exist in the wood sector companies at the national level (the informational system is not very well developed in this aspect). However, the total number of apprentices is estimated at about 1% of the labour employed by the furniture companies, which results in about 3500 'apprentices' at different stages of their apprenticeship. The largest part of those are vocational high school students and other C-VET providers' trainees that carry out their practical training, as well as apprentices trained in rather non-formal ways. Only a few of them are apprentices in the spirit of the Apprenticeship Law. The reason for this is that there are only a few authorized Competence Assessment and Certification Centres in the whole country and while furniture companies themselves could be authorized as centres for competence assessment, the whole bureaucratic process seems unattractive for most manufacturers.

5 Benefits and difficulties associated to international mobility

The international mobility perspective for students (ISM), related to their experience is positive in general terms, as it provides opportunities for acquisition, creation and transfer of knowledge.

Significant differences are detected in terms of students' impact on the education system and on the working environment. The results emphasize the possible consequences and how the return environments may benefit from the students international experience.

Some of the benefits of international mobility refer to the fact that the returnees can foster economic development, enrich human capital, stop human capital outflows, transfer technology, knowledge, and, financial remittances; invest in their own or family members' education, lift the social status or challenge the power relations, create a 'culture of migration', hybrid identities or adopt diverse habits and values; be involved in politics, in the non-governmental sector or to do philanthropic activities.

Regarding the Romanian students mobile abroad, a gradual increase took place in the last decade with 2–3 percent per year, a trend which may continue in the next years as well. For example, a few tens of thousands of students are coming back yearly with increased experience from abroad.

Scholars relate International Student Mobility to three main motivations:

- The first one is the students' desire to improve their career prospects, for adventure, new language acquisitions, etc.
- The second one is given by the states and international institutions acknowledge of the students' potential to contribute to innovation, economic competition and knowledge-based economy, job scarcities, cultural change, fostering local or regional identities, enhancing human capital, and so on.
- The third is related to the education system, such as worldwide recognition, to attract elite students, to adapt to the world market, for extra financing or simply for diversity.

The transfer of knowledge via mobility is mediated though a wide range of factors, such as the reintegration process or the propensity of sending society to use the accumulated knowledge.

However, this increasing interest paid for knowledge transfer in the ISM context has not been extended to the changes which may occur in the context of return due to students' mobility.

New ideas, behavior changes, broader development of local economies and societies or the positive influence on employment are expected to produce significant impacts in the return societies.

However, the transfer of absorbed knowledge, skills and ideas do not necessary take place automatically after the return phase. For instance, an important role seemed to be played by the reintegration process. Reintegration enables a more rapid and effectively transfers of knowledge in the home society. But reintegration seems to be strongly connected to the length of stay abroad, the overall experience of mobility and the preserved connections with the home country.

One of the difficulties associated to International mobility consists in the differences between the working place and the education system. While international experience seems to be essential for all students who work, the situation seems to be opposite for students' who are still studying. Despite a high appreciation of the mobility outcomes, there is an overall disillusion regarding the lack of possibilities for knowledge transfer and students' impact at the end of mobility among students from the second category.

Subsidies are offered to stimulate labour mobility for workers which have to change residence in order to accept employment.

Emigration can explain the shortages experienced in wood sector occupations. The fact that part of the workforce leaves the country results in both a labour and a skills shortage, as those remaining lack adequate qualifications.

For the people who decide to stay in Romania, the low level of salaries and the unattractive working conditions characterizing many elementary occupations create a disincentive to take these jobs. Indeed, even though the average net salary has grown steadily in the past years, it still remains one of the lowest in the EU. On the other hand, employers are reluctant to increase compensation as cheap labour is one of the main competitive advantages of the production system.

6. Main recommendations collected from training providers and relevant stakeholders

Romania has a longstanding tradition in furniture production. In recent years, the furniture production in Romania and the furniture export have increased, mainly due to industry restructuring and to massive investments in new technologies. The ascending trend was interrupted by the economic crisis that was felt in all sectors of the economy, which led to lower production and staff layoffs.

However, important discrepancies still remain in the furniture industry productivity between Romania and western EU countries, which indicates that sector rehabilitation is not exceeded and it is necessary to continue investments in high-performance technologies.

Considering these facts, the following recommendations were collected from different Wood Sector stakeholders:

i. In general, stakeholders need to collaborate in preparing and adopting a national strategy for development of the wood processing industry. Industry should invest in design and technologies for higher-quality, higher-volume production and collaborate with the VET sector to advance workforce skills.

ii. The Romanian furniture industry needs to upgrade the qualifications of its workforce. Additionally, it is very important to strengthen the link between product innovation and science and, likewise, to facilitate the permeability between vocational education and universities.

iii. New technologies require CNC programmers and operators as well as skilled wood operators, including other skills profiles that on the medium to long run require VET system improvements, and in the short term the qualification and requalification informal training courses tailored to the industry needs.

iv. Product quality should be permanently improved and maintained through certified Factory Production Control (FPC) systems, and ISO9001 Quality Management Systems, with the emphasis on production operations, which satisfy the requirements of the European Commission. For this to be achieved, company personnel need to be trained in the mentioned areas.

v. Market research and feedback information collection should be organized professionally, elaborated, and distributed to the companies.

vi. Regular dialog mechanisms bringing together private employers, education and training institutions, and other relevant stakeholders should be set up. These mechanisms should address both formal education and informal trainings.

vii. The skills change with regard to the jobs in the Wood sector should be determined by the customer expectations, the increase in raw material and energy resource prices and the implementation of the new tools in manufacturing. The knowledge in the quality management principles, learning and teaching will be necessary to almost all employee groups. For the qualified workers work with software machinery, their maintenance and programming skills will be relevant in the future.

viii. Engineering specialists should carry out more technical, maintenance and management functions.

ix. The advantages of apprenticeship are related to lower training costs and work with modern technologies. Therefore, the companies having used these opportunities would train the employees with regard to their needs and at the same time would increase VET attractiveness. In the long term this would have a positive influence on the worker supply.

x. In order to improve the training curricula, Vocational education and training schools should monitor the employment level of their graduates. As a result of the monitoring activities, information about future necessary skills should be obtained and used to improve the quality of the theoretical and practical knowledge delivered to students.

xi. At the national level, research is necessary to be conducted to align VET to labour market demand and ensure that educational programmes adapt to the requirements of employers. This should help developing a more structured knowledge of the current situation and would inform policymaking.

Applicable Legislation for Wood Sector in Romania:

Institutional organisation of training provided for those wanting to become wood processing operators is ruled by several specific laws in Romania, such as:

- the Law of National Education 1/2011;
- Apprenticeship Law 279/2005;
- Government Decision 234/2006 - application norms for the Apprenticeship Law
- Government Ordinance 129/2000 – regarding countinuous VET;
- Government Decision 522/2003 – application norms of Ordinance 129/2000;
- Law of Health and Safety at the Workplace 319/2006;
- Law of Work Accidents and Professional Illnesses 346/2002

The last of those laws have special chapters referring to training and trainees. There are also certain provisions regarding apprentices in the Law 53/2003 – the Labour Code in Romania.

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

WOODUAL

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IO 2
"Open study and analysis on professional qualifications and learning systems in the wood sector"
Italy Country Report
(DRAFT)

Sophia R&I
Monica Turrini

1. Facts and figures of the training supply in the country (some tables with structure of qualifications, geographic distribution, number of students, courses, training centres, etc.)

1.1 General characteristics of the Italian VET system

In Italy the compulsory education lasts 10 years, up to 16, and includes the first two years of upper secondary general education or VET.
Young people finish lower secondary education at age 14. At this stage, learners sit a state exam to acquire a certificate (EQF level 1), which grants admission to the upper secondary level where young people have the opportunity to choose between general education or VET.

At upper secondary level, young people may opt for:
(a) five-year programmes which include the two last years of compulsory education and three years (under the right/duty of education and training) in:

1. high schools (licei). These provide general education programmes at upper secondary level;
2. technical schools;
3. vocational schools.

(b) vocational education and training programmes organised by the regions (leFP).
(c) an apprenticeship-type scheme (after age 15).

At post-secondary level, the Italian system features higher technical training (IFTS, ITS) and short programmes or courses (post-leFP and others).

VET courses also exist at post-higher education level.
Tertiary education (ISCED levels 665, 667, 766, 767, 768, 864) is divided into higher education programmes at the university and higher education programmes at non-university institutions

Italian VET provision also offers opportunities in adult education and CVT.

In Italy, the term "**vocational education and training**" tends to be 'reserved' for specific programmes primarily under the remit of the regions and autonomous provinces (such as leFP).
From a European perspective the term '**education and training**' comprises all types and levels of general and education and vocational education and training (VET).
Irrespective of the provider or governance scheme, VET can take place at secondary, post-secondary or tertiary level in formal education and training or non-formal settings including active labour market measures. VET addresses young people and adults and can be school-based, company-based or combine school- and company-based learning (apprenticeships). Therefore, the term VET also covers the technical and vocational schools.

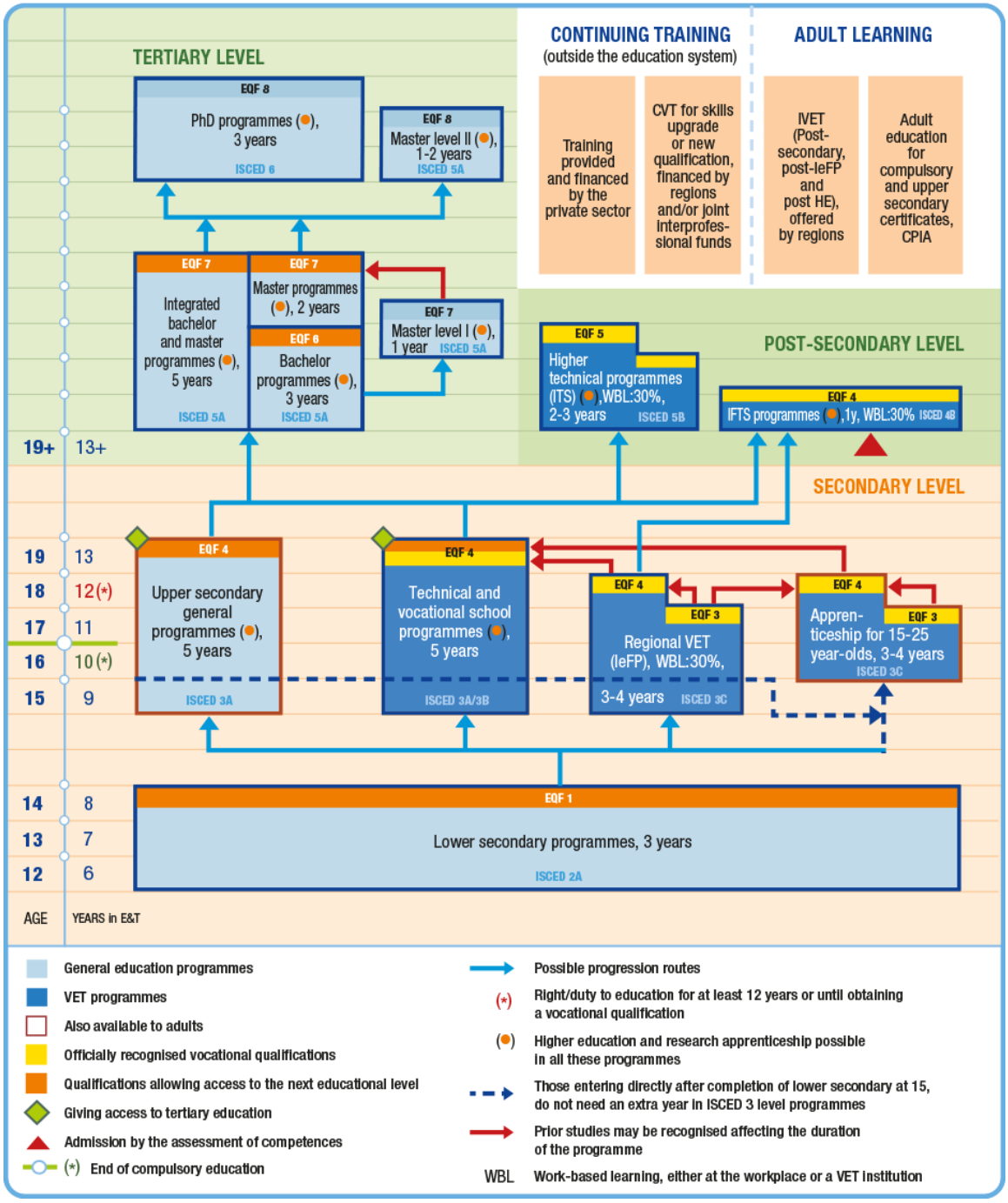
1.2 Technical and vocational school programs

In technical school programmes ("**istituti tecnici**") learners can acquire the knowledge, skills and competences to carry out technical and administrative tasks.
In vocational school programmes ("**istituti professionali**") learners acquire specific theoretical and practical preparation enabling them to carry out qualified tasks in production fields of national interest.

	Technical programmes	Vocational programmes
Training partners involved	Technical schools under the remit of the Ministry of Education (MIUR)	Vocational schools under the remit of the Ministry of Education (MIUR)
Admission requirements	Learners aged 14 with completed lower secondary education; ISCED 244	
Main economic sectors	Economics: administration, finance and marketing; tourism	Services: agriculture; health and social care; food and wine and hospitality; trade
	Technologies: mechanics mechatronics and energy; transportation and logistics; electronics and electro-technics; ICT; graphics and communication; chemical and biotechnologies; fashion; agriculture, food processing and agro-industry; construction, environment and territory	Industry and crafts: industry and handicraft with two branches: industrial and handicraft productions; maintenance and technical assistance
Corresponding ISCED level and orientation/ destination	354	354
Balance between general and vocational subjects	60% general subjects – 40% vocational subjects	
Balance between school- and work-based training	Depends on schools and alternance projects set up	
Length of programmes	5 years (1 056 hours per year) at the end of which programme learners sit a State examination	
Certificate awarded	Upper secondary school leaving diploma (allows to continue studies at tertiary education or higher technical education and training programmes); EQF level 4	
Progression opportunities	ITS and tertiary level/universities	

Source: Cedefop, based on: Cedefop ReferNet Italy (2014); ISFOL (2012); MIUR: I choose, I study.

Source: Cedefop, in cooperation with ReferNet Italy



1.3 Regional Vocational Education and Training (IFP)

Three-year and four-year vocational education and training courses are available from vocational training agencies and upper secondary vocational institutes. Training agencies are vocational training institutions that are accredited by the Regions according to specific criteria established in agreement with the State. Upper secondary vocational institutes follow the guidelines issued by their Regions for IFP courses.
The **Regions accredit the training agencies** that meet the following specific criteria:
a) they are part of a non-profit institution offering educational services to young people;
b) their educational plan involves offering young people the opportunity to acquire certain defined competencies and skills;
c) they implement the national labour contract for vocational training with all staff;
d) their teaching staff is qualified to teach at upper secondary level;
e) they create networks and relationships within the territory and with families;
f) they take joint decisions on the planning and management of teaching activities and guarantee periodic assessment and the final certification of learning;
g) they have suitable facilities and premises.

Training agencies are in the private sector (religious institutions or trade unions) and the public sector (regional, provincial and local institutions).
Vocational upper secondary institutes in the mainstream education system can also offer IFP courses. Vocational upper secondary institutes can provide, on a subsidiary basis and in keeping with the competences of the Regions, two types of IFP course:
a) integrated subsidiary courses for students attending mainstream 5-year upper secondary vocational courses to obtain an IFP qualification after three years of training;
b) complementary subsidiary courses organised in special classes at vocational institutes, preparing students for a three/four-year qualification within the IFP system. Thus, after the 2010 Agreement, vocational institutes can now issue IFP certificates.
So far, most Regions have opted for the first of the two types of offer.

The IeFP programmes (percorsi triennali e quadriennali di istruzione e formazione professionale) offer young people the opportunity to fulfil their right/duty to education and training. The training is designed and organised by the regions.
Over the past few years, increased cooperation between the State, the regions and the provinces has made these programmes more flexible. In 2011, regulations issued by the State-Regions conference, have introduced several important systemic elements:
1) A set of training standards for basic skills to be developed in the three- and four-year programmes;
2) A set of minimum standards (valid at national level) for technical and vocational skills in relation to the occupation profiles included in the national qualifications register (Repertorio nazionale delle qualifiche);
3) Intermediate and final certifications that are valid at national level.

The national qualifications register created in 2011 (10) contains the national occupation profiles and the corresponding qualifications and programmes or learning pathways, as well as minimum education and training standards (valid at national level). Qualifications leading to a certain national occupation profile need to be described in terms of learning outcomes and to be allocated the corresponding EQF level.
The IeFP programmes are organised in modules and aim to develop basic, transversal and technical-occupational skills. This modularisation allows learners to change areas of study through recognition of credits.
On-the-job training activities (especially internships) play a key role and are carried out under the supervision of two tutors, one from the training centre and one from an enterprise. Methods include traditional classroom teaching, simulations, role play, and cooperative learning. Active teaching methods are highly recommended to meet learner needs.

1.4 VET provider and provision quality assurance

Quality assurance in VET is closely linked to accreditation, the main evaluation tool for public and private VET providers that deliver training financed by public funds. Different institutional stakeholders – MLPS, regions and autonomous provinces – have invested over the years in defining and establishing mechanisms for selecting accredited bodies, so improving the quality of training provided by public funds.
VET providers are accredited on the basis of quality standards as indicated by the new national accreditation system of training and guidance providers.
This system has triggered an important reform process in which human resources have been recognised as a key factor for improving the quality of the training system.

1.5 Trainer training

There are no formal requirements to become a trainer but the national collective work contract prescribes that trainers should hold a degree or an upper secondary school certificate as well as professional experience. They should also participate regularly in continuing professional development regardless of their role as a trainer (tutor, counsellor, trainer coordinator). There is no nationally recognised register of trainers.

1.6 Validation of informal and non formal learning

During the last 15 years in Italy, institutions and social partners have widely debated and fundamentally agreed on the importance of ensuring institutional validation of learning outcomes acquired in non-formal and informal contexts.
Several Regions (for example Emilia Romagna, Lombardia, Toscana and Piemonte) started with a regional systems of validation and certification of non formal and informal learning).
The above mentioned Regions developed Repertoire/Directory of qualifications, which includes all regional professional qualifications classified according to the professional categories. Regional professional qualifications constitute the foundational building block of

the Regional Qualifications Framework-and are defined in line with the EU guidelines and existing national provisions.

Nevertheless, until 2012 every attempt to create a national legal framework on validation failed due to the rigid rules (legal value of national qualifications) and the complex institutional governance of the education and training system (national level for school and university, regional level for vocational training with overlapping tasks).
Despite the lack of a national framework, much practice and experience have been developed at local, regional and sectoral levels. Several regions began defining and implementing certification/validation systems and created specific services addressed primarily to the unemployed, hit by the economic crisis. A key tool developed was the **citizen's training logbook** (Libretto formative del cittadino): its format and aims can be compared to the European skill portfolio, but it is managed through a public skills audit support service (at regional level).

Italy introduced legislation on recognition of non-formal and informal learning in 2013, with the **Legislative Decree 13/2013** which includes:
(a) Glossary, principles, institutional duties and responsibilities within the public certification system;
(b) Process standards: the way certification and validation must be provided;
(c) Attestation standards: what a certificate contains, what kind of information is being transferred and how it is traceable;
(d) System standards: division of responsibilities and quality assurance;
(e) A national register of education, training and professional qualifications, which is the unitary national reference framework for certification of competence.

The register will be made up of all existing registers so far encoded by the competent authorities: MIUR, regions, MLPS and Ministry of Economic
Development. Over time it will be harmonised and made more efficient to allow greater permeability between systems and recognition of credits. The emerging regulatory framework at national level will affect the continuing coordination of respective rules and regional services.

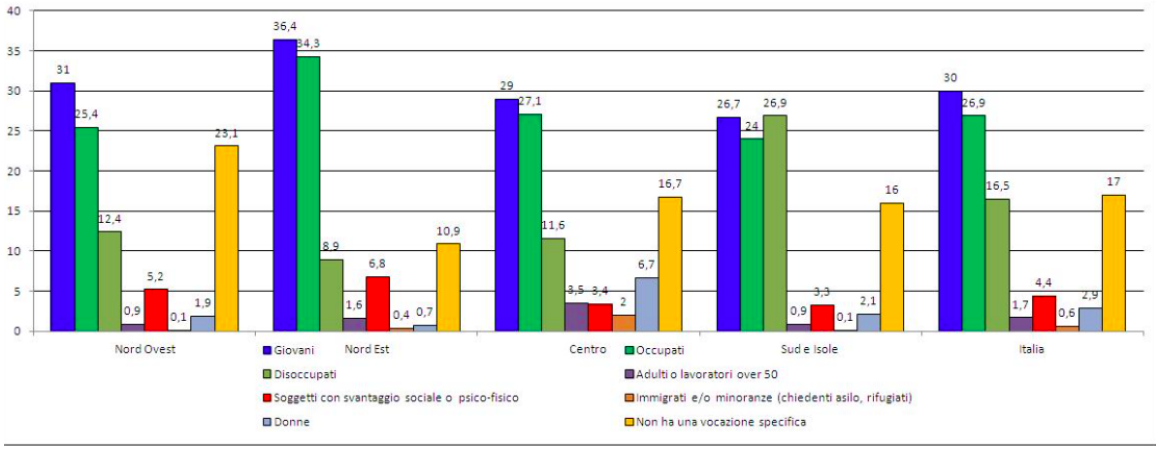
1.7 VET governance

Responsibilities are shared among the different actors involved in planning and organising VET as follows:

1. The Ministry of Education, University and Research (MIUR) sets the framework for VET in national school programmes (technical and vocational schools) for ITS and IFTS;
2. The Ministry of Labour and Social Policies (MLPS) sets the framework for IeFP, while the regions and autonomous provinces are in charge of planning, organisation and provision;
3. Regions and autonomous provinces are also in charge of planning, organisation and provision of ITS, IFTS, post IeFP, post-higher education, and most of the apprenticeship-type schemes;
4. Goals of CVT under the public system are set by the Ministry of Labour, while CVT activities are managed by either regions and autonomous provinces or social partners;
5. Social partners play an important role in promoting company-level training plans (single or group of companies) to be financed by the regions or by the joint interprofessional funds;
6. Social partners have a general advisory role in VET policy, from which VET provision is then defined; the social partners contribute to designing and organising active labour market policies (ISFOL, 2012,).

2. Trends in the provision of training, perceived quality of provision and employment results

2.1 Target group characteristics and geographic distribution



Distribution of young people with a diploma organised by national standard of qualifications, ISFOL, Regional and local data collected by MLPS-MIUR in 2012-2013

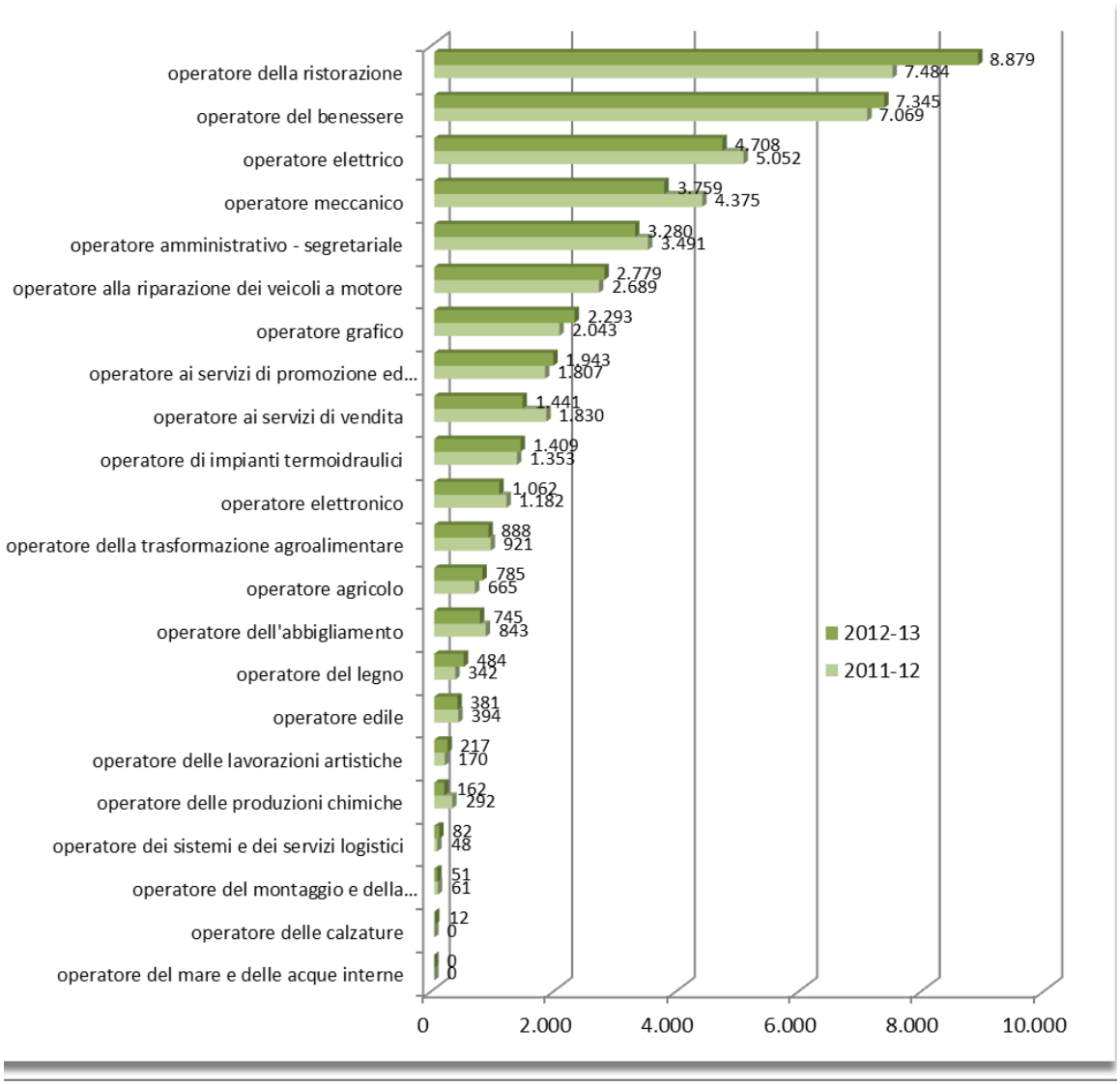


Figure del repertorio nazionale IeFP	Istituzioni formative	Istituzioni scolastiche	Totale IeFP
operatore dell'abbigliamento	1.247	8.533	9.780
operatore delle calzature	31	214	245
operatore delle produzioni chimiche	0	1.822	1.822
operatore edile	1.512	63	1.575
operatore elettrico	13.053	13.244	26.297
operatore elettronico	3.248	7.791	11.039
operatore grafico	6.042	8.194	14.236
operatore di impianti termoidraulici	3.510	4.106	7.616
operatore delle lavorazioni artistiche	1.242	257	1.499
operatore del legno	2.002	438	2.440
operatore del montaggio e manutenzione imbarcaz. da diporto	61	260	321
operatore alla riparazione dei veicoli a motore	10.635	6.059	16.694
operatore meccanico	10.185	12.768	22.953
operatore del benessere	33.891	2.415	36.306
operatore della ristorazione	22.925	71.380	94.305
operatore ai servizi di promozione ed accoglienza	1.741	16.247	17.988
operatore amministrativo - segretariale	6.950	14.199	21.149
operatore ai servizi di vendita	5.147	4.781	9.928
operatore dei sistemi e dei servizi logistici	338	169	507
operatore della trasformazione agroalimentare	4.677	2.818	7.495
operatore agricolo	2.345	5.767	8.112
operatore del mare e delle acque interne	15	219	234
Totale	130.797	181.744	312.541

Fonte: *ISFOL su dati regionali e provinciali, rilevazione MLPS-MIUR*

Distribution of students per job profile and typology (years I-III) – Training Years 2013-14

Figure del repertorio nazionale IFP	IF	IS	Totale IeFP
tecnico edile	67	-	67
tecnico elettrico	700	-	700
tecnico elettronico	158	56	214
tecnico grafico	520	213	733
tecnico delle lavorazioni artistiche	62	-	62
tecnico del legno	191	-	191
tecnico riparatore di veicoli a motore	672	107	770
tecnico per la conduzione e la manutenzione di impianti automatizzati	446	563	1009
tecnico per l'automazione industriale	530	256	786
tecnico dei trattamenti estetici	1.175	-	1.175
tecnico dei servizi di sala e bar	491	-	491
tecnico dei servizi di impresa	956	83	1.039
tecnico commerciale delle vendite	314	79	393
tecnico agricolo	213	-	213
tecnico dei servizi di animazione turistico-sportiva e del tempo libero	49	76	125
tecnico dell'abbigliamento	160	97	257
tecnico dell'acconciatura	1.183	-	1.183
tecnico di cucina	1.460	12	1.472
tecnico di impianti termici	250	63	313
tecnico dei servizi di promozione e accoglienza	442	225	667
tecnico della trasformazione agroalimentare	260	27	287
Totale	10.299	1.857	12.156

nte: *ISFOL su dati regionali e provinciali, rilevazione MLPS-MIUR*

Distribution of students per job profile and typology (year IV) Training Years 2013-14

The training providers and stakeholders in the focus group debate highlight the trends that, in the future, **the production will be integrated with the technology (Industry 4.0)** et some job profiles will be transversal to the sectors. By consequence, the **soft skills are more and more important**.

Kind of services (excluded traning) provided by training centres involved in the ISFOL survey for different target (%)

	Target		
	Services to citizens	Services for employers and enterprises	Not provided
Information desk	42,7	13,7	55,2
Guidance	47,3	7,6	51,0
Bilan des competences	28,8	6,7	67,4
Counselling	21,8	6,4	74,5
Validation and certification of informal and non formal learning	36,6	7,1	60,4
Designing of individual and personal learning path	37,4	17,8	52,7
Coaching	16,5	6,0	79,9
Tutoring	41,4	13,1	51,0
Placement	18,6	np	81,4
Crossing Demand/Supply and support to job search	28,6	7,9	67,8
Outplacement	np	2,8	97,2
Accompanying people with low profile and difficulties to labour market	17,5	2,9	81,0
Supporting Start up	19,6	7,9	75,9
Organisational analysis in enterprise	np	11,0	89,0
Survey, studies and collecting information on labour market, training needs analysis,	np	15,8	84,2
Managing and coordination of training courses on demand	np	26,3	73,7
Organizing activities	18,4	np	81,6
Joint activities students and parents	17,0	np	83,0
Other	10,2		88,2

Fonte: ISFOL, Indagine OFP 2012 [Survey on Training Supply in Italy]

3. Perceived quantitative and qualitative challenges

3.1 Governance, Quality assurance and cooperation with stakeholders

The **cooperation between the main stakeholders**, Education and Training bodies, Employers of the sector, Social partners and Third sector Organisations is a key factor to ensure that vocational education and training (VET) gives people the opportunity to acquire a mix of skills that combines theory and practice, allowing them to perform a specific occupation, but also gives them the opportunity to progress and return to education and training to be able to upgrade and complement their skills. Collaboration and support structures are needed to help small and microenterprises involved in training.

One other key factor for quality in the wood and furniture sector is the **adoption of new pedagogical solutions including ICT and developing soft skills**. This is particular true for the Technical Institutes intended as "Knowledge industries" where we have to redesign and rethink the places of knowledge, with an alternation between school and external organizations (primarily enterprises) in which students and young people explore the operational problems.

Therefore the training bodies need a **new staff of teachers and trainers**, in which the "institutional teachers" (with an adequate knowledge of applications) are integrated and work with the technicians of enterprises, describing the experience and allowing the contextualisation of learning, and researchers in the world University, which present the vision of the future, and then the real contexts in which the students, at the end of their cycle of study, will operate, with the need to use advanced knowledge.

The proposal coming from the focus group and the Italian surveys of the wood and furniture sector:

1) Creating flexible and articulated learning paths for the **Industrial Chain Wood and Furniture**: the young people will live and work in a professional and economic changing context;
2) Launching a **Systemic Training Needs Analysis** (**Forecasting training needs**) at regional and sectoral level: in Italy we lost the knowledge and competences to run a periodical training needs to provide regular data to the government to plan the training supply;
3) Integrating the alternance school enterprise paths in a pedagogical and professional framework. Training bodies are able to design the learning paths, but this is not the same for the other actors.

4. The role attributed to dual learning (apprenticeship, alternance training, etc.)

The new apprenticeship arrangements also feature three different types, with substantial changes to the first and third type, i.e. the apprenticeships leading to formal qualifications. There now are:

- Apprenticeships for attaining professional qualifications and diplomas, the upper secondary school diploma and the advanced technical specialization certificate (art. 43 of Legislative Decree No. 81/2015);
- Apprenticeships for attaining professional skills (art. 44 of Legislative Decree No. 81/2015);
- Apprenticeships for higher training and research (art. 45 of Legislative Decree No. 81/2015).

Table 5. **Average number of apprenticeship contracts by age group and geographic area of work: absolute values and % variation, 2010-12**

Macro area	Absolute value 2010	Absolute value 2011	Absolute value 2012 (*)	% variation on previous year 2011	% variation on previous year 2012
(annual average)					
North	291 333	279 295	261 726	-6.2	-4.2
• north-west	153 708	142 618	136 227	-7.2	-4.5
• north-east	137 625	130 678	125 499	-5.0	-4.0
Centre	136 656	127 825	120 248	-6.5	-5.9
South and islands	100 195	91 370	87 881	-8.8	-3.8
Italy	528 183	492 490	469 855	-6.8	-4.6
of which aged under 18					
North	4 788	4 296	2 565	-10.3	-40.3
• north-west	1 638	1 353	703	-17.4	-48.1
• north-east	3 150	2 944	1 862	-6.5	-36.7
Centre	905	790	356	-12.8	-54.9
South and islands	1 875	1 446	922	-22.9	-36.3
Italy	7 568	6 532	3 842	-13.7	-41.2

(*) Provisional data.
Source: INPS: Archivi delle denunce retributive mensili Emens.

Benefits for young people and enterprises

Apprenticeship could answer to main problems of the wood and furniture sector, like the education and training, as well as the competiveness of SME, young people's relationship with work, the lack of culture of work, the guidance and accompaniment to the work.

As regards the young people, the dual system is the right occasion for:

- familiarizing with the entrepreneurial world via a real employment relationship;
- learn transversal, technical and operational skills in a context that is different from school and allows the contextualization of knowledge;
- facilitate and reduce the time for access to the labour market;
- gain income already during training;
- obtain a formal qualification identical to that of full-time path attendees, while working.

The main benefits for enterprises are:

- Training the young people according to their own needs;
- Cutting down on hiring costs;
- Acquiring new and updated skills (e.g.: computer science, languages, etc.) that are taught in school and that can benefit the company.

Problems and opportunities

In Italy, the dual system is not yet codified and established like in other countries. The two training models connected to work, apprenticeship and internship, although quite similar to a dual model, are not adequately linked to the curricula of the Education System and are often relegated to the vocational system. This is expressed in the system's ability to perform an adequate action of general orientation and employment of young people.

Social, economic and cultural Barriers

- Lack of good dialogue between the training and education bodies and the employers and enterprises;
- Culture of labour versus culture of knowledge;
- Difficulty in finding companies to hire all the young people potentially interested in apprenticeships;
- Lack of commitment by the enterprises to support training, mainly in small-sized companies: but the Italian system is composed by small-sized companies (96%!)
- Lack of cooperation between trade unions, industrial associations and public authorities to ensure the feasibility of compliance with the quality standards in training and final assessment
- Post-graduation degree and PhD: spread the knowledge of apprenticeship in order to increase the recourse to this contract, although it should be used mainly for projects or specific areas of research.

- Bachelor and master degrees: it is crucial the promotion of dual learning paths through a more effective recognition of job training as university credits.

Weakness

1. Italy is in a transitional phase after the adoption of the Law n 81/2015 which abolished the earlier laws and some hundreds of national contracts are now in a confused situation.
2. Legislative Decree further limits the role of social partners in the 3 different types of apprenticeships: Training for professional qualification, Apprenticeships and Apprenticeships of higher education and research.
3. Considering the cooperation between E&T organisations and Enterprises we stress the lack of special agreement and protocols needed to launch the implementation phase as well as the lack of strategic partnership in training needs analysis.

5. Benefits and difficulties associated to international mobility

Pupils' mobility is foreseen by Erasmus+ (Lifelong Learning Programme up to 2013) in different ways for all kinds of schools at every educational level.

Under Key Action 2, funding is available for Strategic Partnerships in so far as they help to deliver the project's outcomes. In addition to project meetings between partners, it is possible to plan joint training events, study visits, project activities among groups of students, language exchanges, long-term mobility of staff for teaching or training and study mobility of pupils.
In particular, activities could be:
Long-term study mobility of students (2 to 12 months); thanks to a learning agreement, upper secondary school students can spend a period abroad in a partner institution. This type of mobility foresees that schools evaluate the period spent abroad and recognize the mobility. Reciprocity is not mandatory. Students should be at least 14 years old.
Short-term exchanges of groups of pupils (5 days to 2 months).
Project activities in groups of students. There is no age limit.

The focus group's participants stressed the fact that the **European and transnational dimension is a key factor for the quality of the learning paths** as well as for the training provided to young people in the chain.

V. Ciccarello, SIAV Veneto, is organising and managing the Mobility for Young Guarantee: the European dimension is critical element to understand the changing of the world and the future and to retrieve the link between the world of work and culture.

As already mentioned, the Low secondary school in Italy promotes the contrast between knowledge and culture and work.
The impact and benefits of the transnational mobility for young people with low profile of qualification and with personal difficulties are really relevant, not only in terms of language but also in terms of competences acquired.

Thanks to I-move project, presented by Gabriele Marzano http://imovenetwork.org

The participants agreed on the following recommendations:

1) Overcoming the occasional and bilateral collaborations such as twinning and exchanges and **Creating permanent instruments for the management of international mob**ility. Each country has to organise a "consortium" of main actors (Schools and Training Bodies, Universities, Companies, Local Bodies, Trade Unions). It is important to adopt technical and juridical tools to manage a permanent system of transnational mobility, overcoming the Erasmus + project.
2) Each National (Territorial) Association or Consortium (composed by local network, not by single people) will mate with others, creating a "umbrella solution" to eliminate or minimize the administrative costs of the initiative. (The experience of Ducati in Bologna is a good example)
3) Adopting a framework to evaluate the mobility's and dual experiences, involving young people and old entrepreneurs, in order to promote the intergenerational learning. The storytelling approach is also a good technic suggested.

The **main difficulties** concern the **validation of the qualifications and diplomas** and the **levelling with EQF**, because the lack of translation between different countries and the solution is a Certificate of competences, attesting the experience.

The solution should be the co-design of the job profile and learning path.

6. Main recommendations collected from training providers and relevant stakeholders

To set up the main recommendations we integrated the recommendations coming from the Focus group with the "Memorandum of understanding National Integrated Training National Integrated Training Plan for the wood-furniture industries" (2012)

Globally speaking, the main difficulties and challenges highlighted by the stakeholders during the Focus Group are:

- The lack of culture of the job (Culture of labour versus culture of knowledge;): young people have a negative perception of the job and the real experience in

enterprise (immersion in the reality) will have a positive impact in term of culture and knowledge.

- The apprenticeship and dual learning paths are focused on the relationship between job and young people and aim at providing new and updated skills.
- Lack of competences and loss of the heritage concerning the training needs analysis at regional and sectoral level, involving the main stakeholders on a permanent basis.
- Promoting regular opportunities to train teachers and trainers, both on contents and on pedagogical approaches.

"Memorandum of understanding National Integrated Training National Integrated Training Plan for the wood-furniture industries" (2012, signed by MISE in 2014)
In order to improve the quality and the geographic distribution of the training supply, the main actors and stakeholders agreed in 2012 agreed and signed a National Integrated National Training Plan for the wood-furniture industries. The policy document have been signed by the Ministry of Economic Development (MISE).
The National Plan aims at developing and strengthening the technical and professional education of the wood-furniture industries and strengthening the link between schools and businesses.

The plan adopts a unified industry strategy, in close cooperation with the territories, which must involve, with appropriate agreements, a variety of partners (companies, trade associations and their instrumental emanations on the formation level, schools, regional training bodies, universities, trade unions, etc.), thus realizing real "System Actions".
The plan addresses:
1) To young students access to the paths of technical education, vocational, educational and vocational training, as well as higher technical education at various levels,
2) To adults already employed through a link with the continuous training of workers and their inter-professional funds, to be carried out on the instructions of the territorial associations of employers and the unions.

The training activities of the Plan is completed by activities encouraging the involvement of different partners, improving the quality of processes, the effectiveness of the training, sharing of experience, through the provision of appropriate documents, analysis of activity guidance, training of trainers, innovative tools to weave education / experimental work, the dissemination of information in the field of innovation.

The strategy of National Action Plan for industry wood-furniture-furnishings: this Memorandum of Understanding aims to promote a process of innovation of the national training supply in the field, enhancing the experience in key structures, of people, of procedures, local organizations, employers and trade unions have developed in these years in education and training.
This process is based on the national and regional training supply, entrepreneurial and commercial wood-furniture industries in a supply chain logic coming from the wood up to the solution and commercialization of all the housing issues.

To implement the Memorandum of Understanding, the stakeholders set up a range of activities:

a) Set up the branche "Chain of Wood" as part of the Technical Education II cycle, incorporating in this the current national Option -inside the branche Building - as well as the new Mechatronic branche;
b) Start-up of Poles Higher Technical Education in the field (Poli di Istruzione tecnica superiore) with courses in the engineering of the furniture production, in industrial design, in the treatment of materials and surfaces, in the marketing sector;
c) Opening of new branches of education and training in the II School cycle, such as in the furniture design;
d) Provision of vocational schools and training institutions in under-served regions but with a developed system of wood industries;
e) Starting training activities related initial apprenticeship of 15 year olds and verification of facilities necessary to enterprises, with proposals for possible improvement of existing legislation;
f) Start up and support of laboratories "Crafts of the Future" within the vocational schools and training institutions with educational orientation purpose;
g) Promoting Guidance Days at regional and national level, aiming at communicating the professional and educational opportunities to young people from the great tradition of the Italian entrepreneurial in the field, aimed at middle school students, families and entrepreneurs.
h) National award in scholarships for middle school students capable identified throughout Schools and Open Laboratories activities;
i) National day "Families in the company";
j) Initiatives and interventions in the media and public communication and with the launch of an internet connection platform and implementation of information and activities;
k) Opening to the research and study of activation as a "University of the trades" of undergraduate courses in engineering wood.

Considering the training supply the main goals identified are:
a) Reorganization of the curriculum of studies of the sector so as to arrive at proposals for specific addresses within the more general process of education and technical-vocational training reform;
b) Redesign the professional profile, the necessary expertise and the need to certify them, thus making them more transparent and communicable;
c) Promoting the cooperation between pool of enterprises and poll of schools in order to accompany the life, development and the growth of the training of young people, in order to maximize the development of their human capital, their talents and abilities and also the purpose of updating the laboratory and ICT for wood and furnishing of schools and educational centres and training;
d) Organising a short seminar for entrepreneurs and local union leaders in order to present the global training initiative, to motivate them and obtain the consent and suggestions;
i) Designing and testing of ITS, IFTS, and their accompanying measures and system, in order to prepare managerial cadres "three-way": in the field of wood-furniture, in the field of financial control and management, in the field of internationalization (during the discussion,

the entrepreneurs stressed that it is necessary above all to achieve a kind of figure of "Framework of Services" summarizing upon himself more responsibilities, because this it is more consistent with the organization of work of the small enterprise of the wood-furniture industries);
j) Designing and testing training activities provided by vocational education institutions and/or by the regional vocational training centres, dedicated to language and cultural training, with reference to the countries with which it has greater respect in the wood-furniture industries;
k) Designing and testing an international Master for the wood and furniture industries.
Finally the Memorandum of Understanding recommended a Report on "non formal and informal learning", implicit training in the sector which should help to identify, select and formalize the know-how that is informally transmitted, also including the issues of intergenerational transmission of the businesses.

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WOODUAL

OPEN STUDY AND ANALYSIS ON PROFESSIONAL QUALIFICATIONS AND LEARNING SYSTEMS IN THE WOOD AND FURNITURE SECTOR

Greek National Report

Contents

1. Introduction

The furniture sector in Greece has similar image to that of the EU (15), and the one showing a decrease in turnover and the other has started to appear a tendency of concentration of business in a few large companies, both in the distribution and sales channels and to track production. However, especially in the district areas, small production units still have an important role in the production and distribution of the product.

Additional parameter affects total domestic furniture industry is competition from imported low-cost products, which originate from countries with low labor and lack of respect to environmental standards that increase production costs. Main beneficiaries of competition are very small companies and individual producers.

The economic climate significantly affects the health and profitability of the industry, the demand is an important factor determining the development of furniture. Indeed, in times of economic crisis, the replacement of household and commercial furniture and the new market postponed.

In general, it is noted that the total volume of consumption of household furniture followed a downward trend during the period 1998-2002 at an average annual rate of reduction of 2.8%, while the total value of consumption of furniture for homes increased at an average annual rate of 3, 3% over the same period. However, gradually, the growth rate was reduced and in 2002 the total value of consumption showed a marginal increase. The Living Rooms Furniture estimated that occupied 56% share of the 23% bedroom furniture and dining room furniture the remaining 21%. Significant changes observed in the structure of the industry, which includes on the one hand, many small, family farms, (craftsmen-carpenters), on the other, fewer medium and large production and import companies.

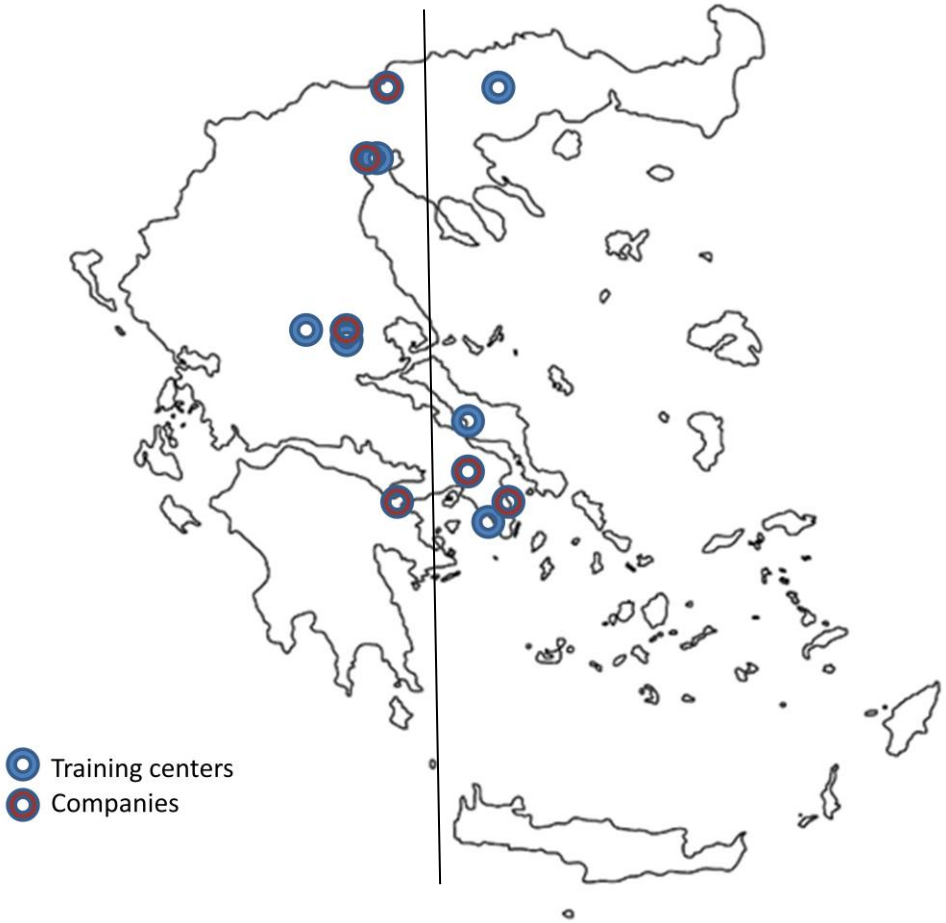
2. Facts and figures of the training supply in the country

Concerning the wood and furniture industry as well as the enterprises or SMEs involved in the area of Greece, the facts are scattered. Although the trend is that wood industries and training centers are closer to large cities but in fact in Greece there are many traditional wood carvers that perform their employ through generations all over Greece. This performance is usually unrecorded and has the form of mouth to mouth transfer of knowledge and practice. Moreover, training centers cover a large area geographical area on the eastern side of the mainland in Greece, forming a central ax. The unrecorded wood carving especially and furniture activity is found in several islands and in decentralized areas to the northeast and northwest Greece.

Specifically for training supply, 70% of training is provided by public Vocational Education and Training Schools, 10% is provided in the secondary education and the rest 20% by institutions of higher education.

The Institute of higher education is situated in the area of Larissa (central Greece) and has very few enrolments of 25 learners per year. Some years ago, according to the department of Design and Technology Wood and Furniture of TEI in Larissa, under independent investigation, final-year

students are hired by businesses to 80% before they receive their degree, which demonstrates the need of the labor market for this sector.



There is indeed labor market demand. Great demand exists for furniture design, interior furniture, modern programming tools and sales-promotion products furniture etc.. The opportunities for professional development are many and the salary and depending on the capabilities of the worker.

The subject area of wood technology and furniture schools is dealing with science and wood technology and the design technology and furniture production driven economy, environmental respect and social acceptance.

The main objectives of all the programmes provided but adjusted to the educational level according to NQF (4, 5, 6) are to

- cultivate and promote knowledge in the fields of wood technology, furniture production technology and woodwork and furniture design,
- to provide students with the necessary skills to ensure their sound training in scientific and professional career and development,
- to contribute to the development of expertise and innovations through the application of scientific, technological or other knowledge, to the development and progress of the industrial and artisanal wood sector and country furniture,
- to train new technologists and wood designers and furniture, of high quality.

Graduates, depending on the level of education has the theoretical and applied scientific training to operate as wood technologist, technologist furniture production and furniture designer, in particular in the following areas:

i) production wood products,
ii) furniture production and woodwork,
iii) original furniture design and woodwork and application design proposals according to new technologies and market trends,
iv) organization and operation of production units and marketing wood products and furniture,
v) application of technical standards production of wood products, furniture and woodwork and implementing quality control standards and quality assurance systems,
vi) wooden furniture and decoration.

The studies include courses that are dealing with:

a) General Infrastructure, knowledge of which is considered a basic condition for the commencement of studies in a wide field of knowledge in which the subject specialty Technologist wood furniture production technology and designer furniture and include, among others Mathematics, Technical design, Computing and Drawing,

b) Special Foundation to help understanding of specialty courses including, inter alia Rythmology furniture, Quality Control, Technical and Construction Design Furniture,

c) Specificity which traded the specialized knowledge required by the specialty of study and include among other courses like Mechanical Wood Processing, Furniture Production Technology, Application Programs Tools Wood and design courses, eg Production Design Furniture with PC, Industrial Design Furniture and Modern Furniture Design Programs,

d) Administration, Economics, Law & Humanities courses which help students both in their professional field, and in the intellectual culture generally and include, among other subjects like Economy Information, Management and Technical Legislation & Work Safety.

The **skills** a learner acquires after the completion of the studies are:

- Use of the Computer, ICT skills
- Academic (scientific and technological) knowledge
- Ability to communicate in Greek
- Ability to communicate in foreign languages
- Learning ability
- Mathematics / Calculation
- Knowledge of specialized software for furniture design

The **abilities** a learner acquires after the completion of the studies are:

- Interpersonal and social contacts
- Solve and analyze problems
- accountability
- organizational skills
- work ethic
- Teamwork

- Leadership
- Entrepreneurship and initiative

3. Integration of the learning outcomes approach in the design of curricula, assessment methods and certification procedures

Following the Copenhagen process, also in Greece there have been a shift to a to learning outcomes approach. Moreover, there have been further developed quality assurance mechanisms in VET for the wood sector so as to gain in quality and participation in line with the European quality assurance in VET recommendation and, as part of quality assurance systems, establish continuous information and feedback loops in initial VET and continuing VET systems based on learning outcomes.

It is stated that there is a growing tendency to integrate learning outcomes in curricula, assessment procedures etc in all wood related educational programs.

4. Trends in the provision of training, perceived quality of provision and employment results

In Greece, most furniture companies adhere to the succession as a means of business continuity. It is most family businesses and that is also illustrated in the educational level of them. Regarding the educational profile of entrepreneurs in the sector of Furniture, we can say that 42% of owners are graduates of primary education, 22% have completed secondary school and 23% the high school. Only 9% are graduates of tertiary education.

Moreover, it is expected, there are differences between young and old entrepreneurs. Thus, 41% of new entrepreneurs are high school graduates and 61% of old business graduates of primary education. Also, it is significant to mention that 23% of new entrepreneurs are graduates of tertiary education, but not at all times related to the wood sector as they can be graduates of schools of economics or managements for example.

The above is mentioned to highlight the fact that wood sector is not something traditional in Greece and that is reflected from both the imports of wood and furniture and in general wooden raw materials but also from the low expectations in the educational sector. And that is also reflected to the learners, students, quality provision etc. It is stated that 58% of all entrepreneurs do not have a computer handling knowledge.

The Greek educational system has always been marked by very strong demand for general education and hence for university studies. Vocational education and training had little impact on young people. Today the situation is not very different. Vocational education is still considered by the new way need despite the constant efforts of the state to bring in alternative equal to general education and despite research data show graduates to encounter less difficulty in finding employment than graduates of general education.

The main feature of secondary vocational education is the low specific weight that occupies the whole of secondary education. Despite constant "reforms", five with that of 2013 (n.418 6), i.e. one every eight years of dictatorship and then, the percentage of high school graduates who choose vocational education is around 30%, well low compared with existing in other European countries,

where the EU average 27 in 2010 was about 50%. Of this 30% not even the 5% is enrolled in any branch of the wood sector.

Specifically as to the picture of the current situation regarding education in the field of wood, it is worth highlighting the following points:

- The overall picture of the attractiveness of vocational education is negative. In the space of a decade, learners of secondary education and in apprenticeship schemes have been reduced by 1/3.
- The attraction of private schools in vocational education is continuously decreasing
- As mentioned above, the EPAS Apprenticeship of OAED have a lasting reduction in the school population.
- The most significant decrease observed in terms of initial vocational training subsystem provided by the VET, public and private.
- Main objective is the qualitative composition and competence of human resources

Low requirements and standards of vocational education and training is provided for the wood sector were the choice, usually as a 'last resort' for low achievers from weak socioeconomic strata, further burdening the role, image and prospects of VET system. In other words, the very character of the training create respective social representations, which in turn are "attracted" or could be aligned to specific categories of student population.

The student categories with their integration into the system units of training need only to confirm their initial "expectations" thereby also playing way reinforcing the recorded in the internal problematic system structure.

The combination of theoretical knowledge of technical disciplines to acquire modern skills through properly planned internship could become nowadays a very attractive option, given the need for more direct and efficient access to the labor market. There, however, that the number of young people concerned about the Vocational Lyceum decline.

An important factor contributing negatively in this direction is the irrational method of designing and creating specialties. The diagnosis weakness of the labor market needs and in particular at sectoral and local levels leads to wrong direction, so that young people come to select professions with no or little prospect.

Additionally, although the issue of internship is a hub for VET, organization or supervision and the level of services, from practice, skills are rather low. Moreover, in many cases apply outdated curricula, given the lack of system modernization and improvement of educational content and teaching methods. This directly undermines both the quality of studies, and the prestige of VET, enhancing the overall climate obsolescence of professional studies

The degradation of the prestige and attractiveness of vocational education is also supported by the fact that through this access to higher education are in a very large number of entrants, whether leading to vocational rehabilitation.

5. Perceived quantitative and qualitative challenges (with a non-exclusive focus on the three qualifications)

In the wood sector in general for Greece the challenges are interrelated. If it is to be generalized, it shall be integrated in three major categories; the VET (educational) system, the reform policies and the economic environment that does not favor the development of the sector in Greece. There are some difficulties encountered for the wood sector occupations, labour and education:

- The geographical distance from the major European urban centres continues to be problematic, since until the completion of the roadway transport existing connections will continue to have some degree of inadequacy and insecurity, increasing the cost of transport.
- High fragmentation of production with small sized enterprises which show difficulties accessing capital and innovations
- High labor costs
- Gap existing knowledge and skills of the workforce based on the desired level
- Low protection design innovations and create copies on the market
- Low indicator of direct investments in third countries for the reduction of production costs

Moreover, the occupations related to the wood sector, as also connected to the expectations in the education level, there are identified specific risks:

- low labour costs in third countries: the Balkans, Turkey, China
- establishment of "Mega" Factories in China
- competition from third countries due to social and environmental dumping
- there is a important piece of producers who cannot accept the changes
- currency (€) which is an inhibitor of penetration attempts in third markets
- concentration of retail distribution of wood products
- substitutes for wood products

More advanced equipment will require higher qualification staff to maintain it, i.e. for the qualified workers work with software machinery; their maintenance and programming skills will be relevant in the future. The complexity of manufacturing and increase in prices of energy resources and other resources means that engineering specialists will need to carry out more technical, maintenance and management functions. They will need creativity, analytical, work in a team, technological and knowledge of technological process skills. Flexibility in trying to adjust to customer needs and the speed in delivering the delegated tasks will become the most essential elements of successful sales and marketing specialist work. Therefore, the need for general skills, especially those of communication and negotiation and foreign languages will increase.

Qualitative speaking the main challenges are linked to the bellow skills:

→ quality management skills
→ quality assessment establishment of quality drawbacks and their causes
→ Communication and negotiation, team work, good foreign language (English))
→ Initiative taking, activity, creativity, interest in innovations
→ Learning creativity
→ Good foreign language skills
→ Communication
→ Team work

- → Know-how of equipment and wood technologies
- → Knowledge of Mechanics
- → Technological process
- → Computer literacy
- → Team work
- → Logical thinking
- → Initiative taking

6. The role attributed to dual learning

(max 1 page it is more)

General remarks of the Greek Apprenticeship/dual VET system

The Greek economy suffered significant macroeconomic changes during the period 2008-2014. Since 2008, the cumulative loss of real economy in terms of GDP exceeded 25% (Bank of Greece, 2015: 56). The recession has aggravated chronic structural problems in the Greek labour market, leading to the fastest rising rate of unemployment in the EU since 2008 (Cedefop, 2014a: 10, 13).

Greece has been suffering an extraordinarily high level of youth unemployment for some years. Vocational education and training that is more closely aligned to the requirements of the labour market is viewed as a vehicle for increasing the employability of young people in Greece. At the same time, this would help to alleviate the shortage of skilled workers at the medium qualifications level and to improve the competitiveness of companies based in the country. Several countries such as Germany, Austria and the Netherlands keep low rates of youth unemployment due to the application of apprenticeship programmes and the dual educational system.

Young people aged 15-24 are mostly affected by the effects of the economic crisis and youth unemployment reached exceptionally high levels after 2008 with obvious difference from unemployment rates of other age groups in the workforce (European Commission, 2014a: 25). The unemployment rate of this age group (15-24 years) in Greece reached 52.4% in 2014 (Ministry of Finance 2015: 11). Unemployment among young people aged 20-29 also remains high, although it seems that active employment policies and legislative changes from 2012 to 2014, which allowed the recruitment of young people with lower wages and more flexible forms of employment, have helped to reduce youth unemployment from 47.4% in 2013 to 44.2% (Bank of Greece, 2015: 70). The unemployment problem is particularly acute for young people who are neither in employment nor in education and training (NEET) with the NEET rates having increased for 15-24 year olds to above 20% in Greece (European Commission, 2014a: 25, 48).

The apprenticeship and dual VET schemes aim to help those entering the labour market to acquire a certain and specific background experience. By that the apprentices acquire professional expertise, experience, improving in this way their job prospects, while they earn a salary during their training[1].

[1] CEDEFOP, Info note, developing apprenticeship schemes https://www.google.gr/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&uact=8&ved=0ahUKEwjy86mN76LPAhWFthQKHXScBwQQFghCMAU&url=http%3A%2F%2Fwww.cedefop.europa.eu%2Ffiles%2F9088_el.pdf&usg=AFQjCNE2O1Is3oUobAnLQJi3WO_bZH1Y1Q&sig2=x59Yg9w_01aTNqKfn40lQg

In Greece apprenticeship is defined as alternating training combining school teaching and the workplace. The apprentice is contractually related to the employer and has the right of wages receiving. **The employer assumes responsibility for providing the trainee with training leading to a specific occupation**. It is provided by Apprenticeship vocational schools (Apprenticeship EPAS – EPAS Mathiteias) under the control of the Manpower Employment Organization (Organismos Apascholiseos Ergatikou Dynamikou, OAED) of the Ministry of Employment and Social Protection (Ypourgeio Apascholisis kai Koinonikis Prostasias, YPAKP). OAED specializes on issues concerning employment. It investigates the labour market, knows its trends and dynamically evolving works, thus education and practical training in fields demanded by the labour market determine OAED's effort.

Apprenticeship EPAS belong to upper secondary education and focus on specialties demanded by the labour market. They discover young people's talents and urge them to select a specialty they like. The selection criteria of trainees are the average grade of their lower secondary certificate and their social and economic condition. Graduates of A' grade of General or Vocational school are the only ones who can enrol in apprenticeship EPAS.

It is worth mentioning that in Greece the last decade:

- The number of actual apprentices in EPAS has decreased over time
- Drop out number saw increased from 13% to 26% but still remains the same but
- The number of students was reduced by 50% within 10 years
- From 2012 to 2014, there is a new upsurge in the share of traineeship positions, which rose again to a significant 73%.
- From 2009 and onwards there was a sharp reverse of the trend, resulting in 66% on average doing traineeship in the public sector and only 34% in the private sector

Trainees become active members in the labour market from the first year of their studies. Apart from classes, trainees can have practical training in private or public enterprises. The duration of the studies in apprenticeship EPAS is two years (four semesters). During these two years of studies trainees have theoretical training in class and at the same time practical training in public or private enterprises for four or five days a week. There are 52 apprenticeship EPAS throughout Greece. Changes in the labour market are reflected in the curricula which are constantly adapted to its needs. Among the benefits provided by Apprenticeship EPAS, trainees receive food and lodging as well as books and notes. Moreover, they are insured by the employer for their practical training.

Vocational Upper Secondary Education

In Vocational Upper Secondary Education in Greece there are the following vocational schools and related occupationally-focused programmes (Cedefop, 2014a: 20-23, Cedefop, 2014b):

Vocational Upper Secondary Schools (EPAL): A vocational upper secondary school (day or evening EPAL) provides initial vocational education and operates within the formal education system in the second cycle of secondary education.

Vocational Schools (EPAS): Vocational programmes at upper secondary level were offered by the Vocational Schools (EPAS) operating under the supervision by the Ministry of Education and Religious Affairs, as well as the Vocational Schools (EPAS) of the Public Employment Service, the Manpower

Employment Organisation (OAED), supervised by the Greek Ministry of Labour. Meanwhile, vocational programmes at upper secondary level are offered in the health sector by EPAS Nursing assistants, which are under the supervision of the Ministry of Health. Furthermore, the implementation of secondary vocational training in the agriculture sector is under the responsibility of the "HELLENIC AGRICULTURAL ORGANIZATION - DIMITRA" (ELGO “DIMITRA”), which is in charge of the organization and functioning of the Agricultural Vocational Education and Training (Article 12 Law 2520/1997, Gov. Gazette 173 A’ / 1.9.1997).

Vocational Training Schools (SEK): According to article 17 of Law 4186/2013, non-formal education institutions include Vocational Training Schools (SEK), which provide initial vocational training to graduates of compulsory education and can be of day or evening study, public or private.

At Postsecondary and tertiary levels of not higher education, the following VET options are available (Cedefop, 2014a: 26-27):

Post-secondary non-tertiary vocational training institutes (**IEK**): A vocational training programme offered by IEK refers to initial vocational training services to graduates of secondary schools and graduates of vocational training schools (SEK).

Higher professional programmes: Vocational programmes are also offered at tertiary level by higher professional schools. Their programmes require at least two years of study and may be as long as five years. In most cases they include a period of practical training in the workplace, which is a particularly important feature of their courses. These higher professional schools operate under the supervision of the competent ministries (Ministry of Tourism, Ministry of Culture, etc.).

Apprenticeship programmes in Vocational Schools (EPAS): Apprenticeship programmes in EPAS-OAED provide young people with a combination of class-based theoretical education and on-the-job training in both private and public sector organisations in order to help them acquire professional experience in real work conditions so as to facilitate their labour market integration. These programmes provide subsidised apprenticeship placements relevant to the occupational qualifications of the EPAS-OAED students. According to the 50153/22.06.2015 Circular of OAED Governor**,** the following 36 occupations will operate in all EPAS Schools of OAED during school year 2015-2016: aesthetics, goldsmithing and silversmithing, baking-pastry making, general nursing assistant, general-baby nursing assistant, pharmacy assistant, graphic arts-printing, graphic arts-computer-aided design, air conditioning and refrigeration technician, fur processing, artistic marble processing, ceramics-pottery, hairdressing, building works, culinary art, marble, hotel-related jobs/professions, carpentry–furniture making, art conservation-restoration works, designer technical applications using computer, computer support systems, natural gas technician, car body technician, machine tools technician, electrician, auto electrician, electronic appliance, installation and computer technician, plumbing and thermal fixtures, metal structure technician, machinery and motor systems technician, shipbuilding technician, administrative assistant, financial assistant, fabric-clothing, horticultural works – landscaping horology (OAED, 2015: 70-79 • http://mathitia.oaed.gr).

Apprenticeship Year of EPAL: Apprenticeship Year of EPAL is optional and constitutes "post-secondary studies circle" outside the formal education system, according to article 7 paragraph 1 of Law 4186/2013, as amended by article 72 paragraph 1 of Law 4310/2014. Although provided in Law 4186/2013, the “Apprenticeship Year” has not yet been implemented in practice.

Apprenticeship Programme of Higher Schools of Tourism (A.S.T.E.): Apprenticeship-type schemes are provided by Schools of Higher Tourism Education (ASTE) as part of the education in the speciality

of Hotel Management and aim to prepare senior executives for the tourism industry. The conditions of study, the admission process, and the number of students are defined by notice published in early July each year.

Work Practice/Training

The purpose of work practice (traineeship) is to provide all students of EPAS with professional skills and relevant work experience, via simultaneous vocational education at school and at the workplace.

In every EPAS there is a special Employer Registry kept, which is enriched and updated on an ongoing basis under the responsibility of the teachers responsible for students' work practice, and for which OAED's Education Directorate is constantly informed. All companies, whose activity is consistent with the occupations and curricula of EPAS, can potentially join the aforementioned Registry.

Traineeship of the EPAS students takes place in companies of the Private or Public sector, in relevant duties to their specialty, according to a specific schedule, and lasts 4 semesters. These semesters are called "traineeship semesters" and are divided into 1st, 2nd, 3rd and 4th. The expiry date of the last semester coincides with the expiry date of the school year. The daily work of all trainees is set at six (6) hours.

Before the beginning of the apprenticeship in an enterprise/organization, an Apprenticeship Contract is necessarily signed between the employer, the student and the school, which contains the start-end date of traineeship as well as the obligations of the employer and the student. The first 2 months of traineeship is a trial period for all students. During these months the Contract may be cancelled by the parties of the Apprenticeship Agreement. By completion of the trial period, the Apprenticeship Contract becomes definitive and cannot be cancelled, except for legitimate and serious cause.

The formulation and implementation of educational policies in general and in particular terms in education, depend on the specific historical circumstances, the context of socio - economic, cultural and political conditions, which in turn create the possibilities and limitations.

Enterprises are involved in the Apprenticeship system mainly through business associations, institutes, chambers and other social partners. Through the new L.4186/2013, social partners are already invited to take an active role by making proposals on specialties and occupations to work in the EPALs. More specifically, it is stated that «With Decision from the Minister of Education and Religious Affairs, public Vocational Lyceums provide specialties and organize departments according to the national and regional needs of the economy, the proposals of the Regional Committees of Vocational Education and Training, GSEE and GSEVEE, Chambers and Scientific Associations, the proposals of the Ministry of Labour, Social Security and Welfare and OAED, the Ministry of Regional Development and Competitiveness, the Ministry of Health, Ministry of Rural Development and Food, Ministry of Tourism, Ministry of Culture and Sport and Ministry of Maritime and the Aegean».

7. Skills mismatch – identification of labor market needs and development of curricula

In general there is skills mismatch in relation to the labor market needs, since the education providers do not have the incentives, educational staff etc, motivated towards this direction.

In Greece there have been performed policy reforms to correct the mismatches. It have been implemented for VET schools in general but it actually influences the VET provision in the wood sector too with the following responsive approach:

→ Enhanced relevance of and access to TVET programs, improved capacity for good quality TVET delivery, and delivery of relevant skills training.

→ To enhance the relevance of TVET, the program will support the establishment of partnership with industry;

→ Development of competency and training standards;

→ Development of curricula, teacher guides, learning materials, and assessment tools; and

→ Capacity development in external competency assessment

The new **L.4336/2015** and the reforms foreseen, OAED[2], in cooperation with the Ministry of Labour and the Ministry of Education, must provide by school year 2016-2017 traineeship positions for all apprentices of EPAS and students IEK (Vocational Training Institutes), and apprenticeship positions for at least 33% of EPAL students ("apprenticeship class").

- The new Law is essentially reflecting the great importance attached to apprenticeship as a means of combating youth unemployment and establishes greater duties to OAED, whose knowhow is required to draw – in cooperation with the ministries of Education and Labour - a comprehensive plan aimed at the gradual provision of apprenticeships to all vocational education students and to the 1/3 of EPAL students.

Modernization of vocational education and training is mentioned also in the recently adopted **Law 4336/2015** [**Memorandum of understanding** between the European Commission (acting on behalf of the European Stability Mechanism), the Hellenic Republic and the Bank of Greece]. According to the requirements of the new Law and on the basis of the reform adopted in 2013 (Law 4186/2013), the Government is obliged by December 2015 to (key deliverables): (i) legislate a modern quality framework for VET/Apprenticeships, (ii) set up a system to identify skills needs and a process for upgrading programs and accreditation, (iii) launch pilots of partnerships with regional authorities and employers in 2015-16 and (iv) provide an integrated implementation plan from the Ministry of Labour, the Ministry of Education, and OAED to provide the required number of apprenticeships for all vocational education (EPAS and IEK) students by 2016 and at least 33% of all technical secondary education (EPAL) students by 2016-2017; (v) ensure a closer involvement of employers and a greater use of private financing. Regional public-private partnerships will be run during the academic year 2015-16

There are constant steps, even the difficulties to adjust the VET and other education to the lebor market needs. But this proceure is not fast. The last three years though the results are evident since the VET School in Thessaloniki, Pireus and The Higher education institution have alterd ther study guides, and the certification body EOPPEP have developed new and up to date job profiles.

[2] Greek Labor Organisation

8. Benefits and difficulties associated to international mobility

Mobility in Greece has been Increased especially after 2008-9, and especially because the economic environment of Greece and in relation to the rest Balkan and neighboring countries. Wood sector in EU is perceived as a very promising sector and that is in fact confirmed from the numbers; in France more than 400.000 people work in the wood industry.

The benefits are dealing mostly to the geographical area of Greece that is near to the Balkan countries and Turkey and Italy as well as the countries in the southern Mediterranean, for international mobility.

On the other hand, International mobility is not a common practice, and learners either stay at the decentralized area which they are employed as craftsmen, or they transfer to the nearer area to learn the techniques of wood.

9. Main recommendations collected from training providers and relevant stakeholders.

After the consultation of the different stakeholders in Greece for the wood sector for both education and training but also entrepreneurships it is notable and understood that the problems faced in that sector are reflected for the general educational and business area.

Ineffective policies pursued in recent decades in the field of secondary vocational education, frequent changes and reforms and the lack of adequate public information about the possibilities of pre-bidders vocational education, are some of the factors responsible for the gradual obsolescence vocational education in our country, with negative consequences on the development, but also to tackle youth unemployment.

Vocational education is still considered by the new emergency outlet, despite the efforts promote it as an alternative equal to general education and despite research data show graduates to encounter less difficulty in finding employment than the from-studying general education.

Training is especially important to meet the demand for professional formation of the student, enabling him to meet the needs of tomorrow's profession and expanding access to the labor market. The effort to reform vocational education is not offered in simplistic solutions, and much more inexpensive and superficial reforms that piecemeal intervene without integrated design proposal and feasibility study and implementation.

The introduction of the apprenticeship year under Law 4186/2013 is a new practice with respect to link vocational education and the labor market. However, the problem approaches, as described in the new law, no organized framework and supporting structure for the application. Therefore, it seems the risk of abuse (e.g. replacement workers from apprentices), but also the chance to be a misguided attempt to transfer "loans" the organization of models whose effectiveness occurs in conjunction with other economic, social and cultural variables that are not all certain that there are in our country.

Recommendations:

- To improve employee qualification by updating study / training programmeswith regard to theestablishedskillneeds

- Improve the balance between the employee demand and supply by changing admission requirements to the higher education school and providing for the tools promoting the mobility between different education chains, i.e., some study programmes should be established with vocational education and training and work experience requirements. Also, the Wood sector companies could use opportunities of the Amendment to the Law on Vocational Education and Training (2007) that establishes new Apprenticeship VET organisation forms (in1house training). This would help to solve the lack of employees and their qualifications problems;

- WiththeaimtoimprovetheadmissionplanningtotheVETandhighereducationschools,itisnecessary to establish data collection and storage system enabling reliably assess admission, graduation and futuregraduatecareertrends.

On the other hand some specific opportunities were arisen:

- Favourable position of both training centers and companies in terms of development axes Proximity to Thessaloniki, Athens and means of transportation
- Development of trans-European transport networks that are also enhanced by the need of mobility
- Political Stabilization in the neighboring countries that have a good effect on mobility of trainers
- Renewal of equipment and strengthening the local industrial production through increased investment
- The-international and domestic-consumption is expected to increase in coming years and doubled over a period of 20 years.
- Customizing of educational studies and programmes on each individual needs to boost employment and education in the sector
- Utilization of designing systems for new wood products of high aesthetic value
- Subsidized investment programmes which potentially could strengthen the competitiveness of firms in the industry by providing motives to accept apprentices
- Utilisation targeted marketing activity and marketing products in new markets in combination to learning of marketing and management of a business during training.

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WOODUAL

AIDIMME

1.- FACTS AND FIGURES OF THE TRAINING SUPPLY IN THE COUNTRY (SOME TALBES WITH STRUCTURE OF QUALIFICATIONS, GEOGRAFIC DISTRIBUTION, NUMBER OF STUDENTS, COURSES, TRAINING CENTRES, INVOLVED STAKEHOLDERS, ETC)

SPANISH VOCATIONAL TRANING SYSTEM

In relation to the VET there are different levels of political and administrative responsibilities and activities within each territory level. The Ministry of Education, Culture and Sport (hereinafter Ministry of Education or MECD) is responsible for developing and implementing government policy in VET programmes in the education system whereas the Ministry of Employment and Social Security (hereinafter Ministry of Employment or MEYSS) is mainly concerned with VET programmes in the National Employment System and continuous vocational education and training (CVET).

The government's advisory body on VET is the General Council of Vocational Training (*Consejo General de la Formación Profesional,* CGFP). Education and Labour administrations responsible for VET, at national and regional level, work together in this body with social partners from companies and unions as well as VET provider associations.

The catalogue of VET diploma programmes, produced by the MECD as well as the national repertoire of professional certificates (RNCP) produced by the MEYSS, are the two VET options associated with the national catalogue of professional qualifications (*Catálogo Nacional de Cualificaciones Profesionales,* CNCP).

In SPAIN there are two parallel VET systems:

1. **VET Training system depending of the Ministry of Education**

Related to the wood and furniture sector: Basic, Intermediate and Higher Education Degrees.

Basic degree
Professional technician in joinery and furniture, (2000 h)
Intermediate degree:
Technician in joinery and furniture, (2.000 h)
Technician in installation and furnishing*, (*2000 h)
Higher degree
Higher Technician in design and furnishing (200h)

There are 77 wood and furniture VET centres in Spain, but not all of them have basic, intermediate and higher degrees, it depends on the Community and the importance of the furniture sector in each region.

The number of students in wood and furniture VET, intermediate level is 2949.
The number students in wood and furniture VET, higher level is 707.
There is also a Wood and Furniture Teachers Association with 146 partners.

Features of the VET

Along with training in a classroom setting, there is also Training in Work Centres and the Dual Training:

Training in Work Centres. It is a compulsory professional module which is studied in all the levels of VET (basic, intermediate and higher).
It is practical training in enterprise which takes place in the workplace. It should be done once all the professional modules of the training cycle are finished, in the actual environment of the company. It has no employment or intern relationship; students enrolled in it continue to be students enrolled in accredited courses.
Passing it is required for any degree in the teaching of vocational training. The activities that students will perform at its practices are related to the professional profile of the title of VET which are pursuing and are included in a training program.

Dual Training is a new modality within vocational training from 2012. VET Dual projects in the educational system combine the processes of teaching and learning in the enterprise and in the training centre and typically carried out in regime of **alternation** between school and the company, with a number of hours or days of variable duration between work and Education Centre. **With this new innovative method, companies can support new models of organization of vocational training that are addressed to the pursuit of excellence in the relationship of the company with the vet schools and promote their Corporate Social Responsibility.**
The implementation of this modality in the offer of the teachings of FP depends, as in all the offerings of each autonomous community.

2. National Qualification System Body

The National Institute of Qualifications (hereinafter INCUAL) is the technical instrument, endowed with capacity and independence, which supports the Spanish General Council of Vocational Education and Training in order to attain the objectives of the National System for Qualifications and Vocational Education and Training (known in Spanish as SNCFP).

- The INCUAL the responsibility for defining, creating and updating the National Catalogue of Professional Qualifications and the corresponding Modular Catalogue of Vocational Education and Training.
- the INCUAL is placed under the control of the Secretary General of Education (Ministry of Education, Culture and Sport)

The National System for Qualifications and Vocational Educational and Training (SNCFP) consists of instruments and actions which are necessary to promote and develop the integration of vocational education and training through the National Catalogue of Professional Qualifications. Besides, it aims at promoting and developing the assessment and accreditation of professional competences in order to encourage the professional and social development of the people and to meet the needs of the productive system. A professional qualification is defined as a set of professional competences significant in employment which can be acquired through vocational education and training (VET) modules or any other kind of

learning structure as well as through work experience. It is a set of procedures to recognize, assess and accredit the professional competences acquired through work experience or any other type of non-formal learning. This assessment and accreditation of professional competences will be developed following principles that guarantee the assessments reliability, objectiveness and technical rigour. The National Catalogue of Professional Qualifications serves as an objective reference in this procedure. When the professional competences of an employee are assessed and they are not sufficient to complete the qualifications included in a diploma of vocational education and training or an Occupational Aptitude Certificate, a partial cumulative accreditation is awarded. Thus, if the employee wishes to do so, he/she will be able to complete the training in order to obtain the relevant diploma or certificate.

The Minister of Labour and Immigration and the Minister of Education will develop, with the collaboration of de administrations belonging to the Autonomous Community, a Committee for Information and Guidance, which allows getting information related to the accreditation and assessment procedure, the official announcements and the training offers. Each Qualification has a training course related "Professional certificates". The Spanish Qualification System has 5 qualifications level:

- Level 5: Postgraduate /Master
- Level 4: Grade
- Level 3: Higher technician. / Professional Certificate, L-3
- Level 2: Technician / Professional Certificate, L-2
- Level 1: Professional Certificate, L-1

Comparison between Spanish qualification level and EQF level:

Spanish level	EQF Level
5	8
	7
4	6
3	5
2	4
	3
1	2
	1

Professional certificates related to the furniture sector:

- **Spanish level 1,** 4 qualifications
- **Spanish level 2,** 10 qualifications
- **Spanish level 3,** 4 qualifications

Wood and furniture sector: Total qualifications 18

SWOT ANALYSIS

WEAKNESSES	THREATS

• Lack of renewal between the equipment, teachers
• Size of companies
• Lack of languages literacy
• Shortage studies related to:
  • Training needs
  • Technology trends
  • Technology watch
• Students are not motivated
• Lack of training for trainers
• Studies in the University related to the sector
• Lack of cooperation between the teachers in different VET centres.
• Lack of knowledge recycling
• The image of the sector is not a technical image
• **The people think that this sector is the responsible of the tree falling**
	• Globalization
	• Technology advances more than SMEs
	• New materials
	• Lack of advanced computer classrooms and workshop equipment
	• There exists ignorance about the real use of the wood, usefulness and application.
	• Bad image of wood in comparison with other materials

STRENGTHS	**OPPORTUNITIES**
• Good professionals • Creativity • Good relation with the companies • The student can work as entrepreneurs, in woodworking machine, and installation of furniture and joinery • This sector promote the development of capacities and abilities using an alive material with a lot of possibilities for a lot uses	• New materials • Training plans for teachers and companies • Good relationship between teachers and technology and materials suppliers • Teacher more polyvalent • Innovation sectoral • To participate in European projects • Students more polyvalent, in building and furniture sectors • This sector is a sector connected with the planet sustainability

2- INTEGRATION OF THE LEARNING OUTCOMES APPROACH IN THE DESIGN OF CURRICULA, ASSESSMENT METHODS AND CERTIFICATION PROCEDURES

CERTIFICATION SYSTEM

1. VET Training system depending of Ministry of Education

In this case, the student has a theoretical and practical evaluation carried out by the teacher, for each training module, depending on the content. During the practices in companies and dual practices, the tutor in the company is responsible for evaluating the student.

2. Qualification system

In this case there are two possibilities:
1. - To obtain the certification with a specific course related with each qualification. In this case the student needs to pass the theoretical or practical exam like in the VET training system depending of Ministry of education.
2. – Non-formal procedure, in this case the candidates must prove that they have the competences for a specific qualification; our system has developed the questions and the practical evidences to acquire the certification for each qualification.

Both, the education and labour administrations have evaluation systems and institutions for the evaluation and control of VET Programmes. Currently, the Qualification System assessment is under development and a committee has been established to define the evaluation methodology and criteria led by the Ministry of Education.
In addition, the Evaluation Institute of the Ministry of Education (INEE), in collaboration with the Autonomous Regions, has established procedures and statistical indicators, which will enable annual assessments which serve as a basis for decision-making policies and for improving the quality of the Spanish education system, including vocational training, in line with different EU recommendations and directives.
On the other hand, as regards vocational education and training for employment, the State Public Employment Service (SEPE) with the cooperation of the Autonomous Communities Employment Services and the Tripartite Foundation for Training for employment (FTFE), and as coordinator of the National Employment System, annually evaluates training initiatives as part of the annual monitoring plan of the entire training for the employment subsystem. Its evaluation is based on a system of indicators and focuses on quality, impact, effectiveness and efficiency. Some of the evaluation indicators are referenced to the European Quality Assurance in Vocational Education and Training (EQAVET) Reference Framework guidelines. The evaluation report is produced by external contractors.
In addition, within the establishment of a new framework for the evaluation of active labour market policies in 2013 different indicators have been established to evaluate initiatives and measures developed by SEPE and the Autonomous Communities. One of the strategic objectives resulting from the annual assessment of employment policies assessment in 2013 is to improve the quality of training for employment. The objective also refers to improving people's transition to the labour market through training, and special attention is given to the new training and apprenticeship contract which will reinforce the Strategy for Entrepreneurship and Youth Employment for 2013-16. It is accompanied by a monitoring of the quality of dual vocational training. As part of the quality of the vocational training monitoring process, it has been considered important to include the completion rate of the training programmes as well as the promotion of formal qualifications that can be acquired

through VET and as well as other indicators, such as the number of training centres certified with quality management systems such as EFQM or ISO.

The Ministry of Education provides grants for the development of innovative projects with the aim of promoting quality and excellence of VET in the education system, enhancing collaboration between VET centres and among centres and companies. These projects help to improve students' academic results and support the integration of VET students into the labour market

3 TRENDS IN THE PROVISION OF TRAINING, PERCEIVED QUALITY PROVISION (ON THE BASES OF EQAVET TOOLKINT INDICATORS)- EMPLOYEMENT AND UNEMPLOYEMENT RATES, LINKING TO THE LABOUR MARKET

In the case of Spain, training professional has experienced a push, being recognized by the companies as the best tools for have of workers qualified.
To get to this point has been throughout a work of awareness about the importance of training as a motor for innovation and the competitiveness of businesses, among the activities carried out since 1992 in a progressive manner, notably:

- Update of training contents in this phase participated the agents social with teachers and sectoral experts
- Training and update of the expertise of the teachers, training for trainers.
- Updating of equipment in the vet schools
- Implementation of the workplace training, FCT
- Differentiation between the media and high cycles, specific qualification, or exam for access to the higher cycles
- Increased demand by companies of students trained in VET schools
- Put in place of the system national of system of qualifications
- Professionalization of the companies.
- Implementation of a dual training system

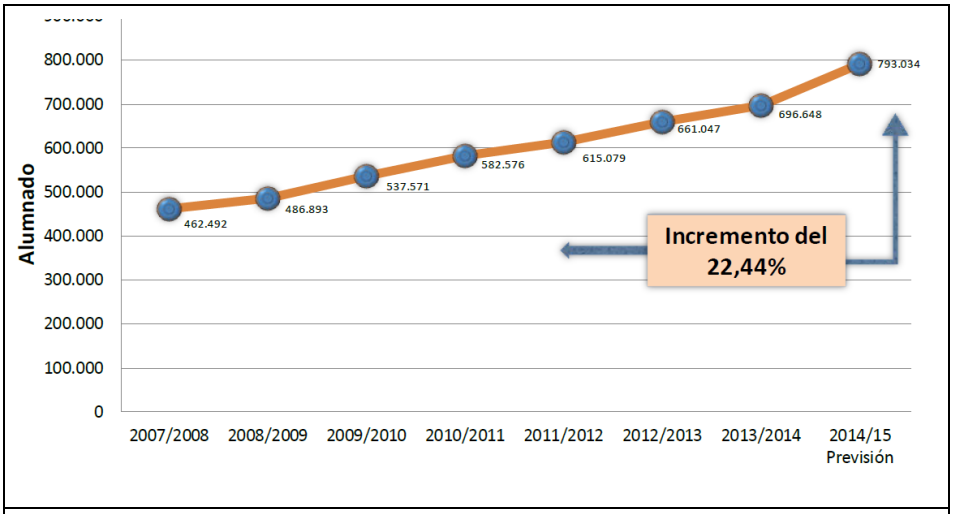
All this activities have been done throughout the years and in a progressive manner, certainly, not all centres have updated their equipment, but some of them have improved the equipment.
Another of the aspects that has influenced in a positive way its professional training has been the situation of crisis in Spain. Because many unemployed workers have begun their recycling using vocational training, both in the field of professional qualifications as training cycles, to access again to the market work with a skill or specialization.
On the other hand, the practices in company together with the new dual training system are a way to recruitment, because during the period of training in companies they know best the future workers.

The VET providers say:

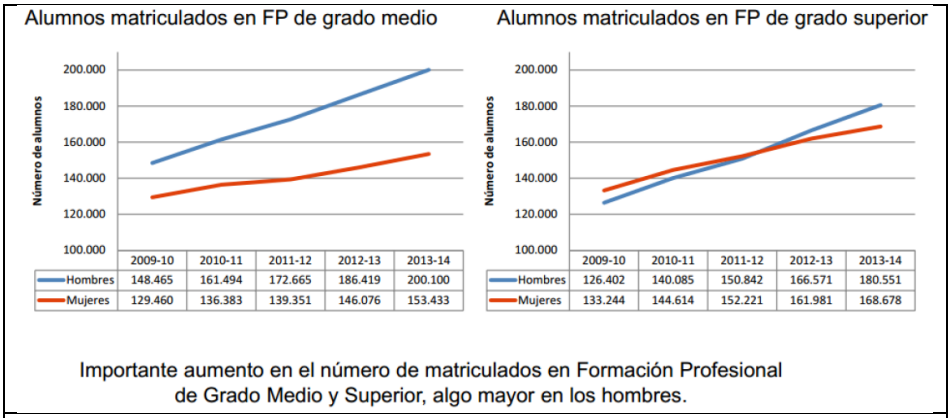
- The relationship between VET providers and companies is very good, the companies think that the students have good competencies, and the experience is that a lot of students are employed at the end of the practices in company.
- Currently the number of students in VET centres is low in comparison of the number of companies. The number of students at the beginning is bigger in comparison to those who finish the academic year.

Normally, when a company has students in practices, this company repeat again every year.

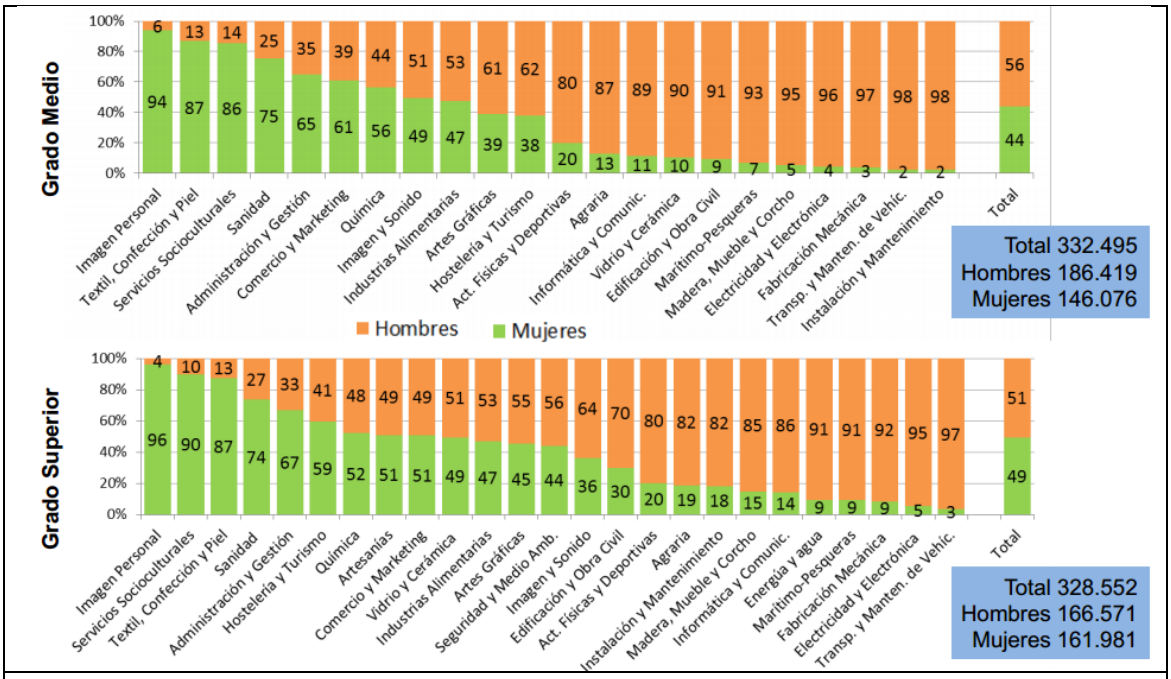
In the following schema, we can see data from the Ministry of education related to the evolution of the VET in recent years, depending on the type of specialty the volume of students enrolled is different.



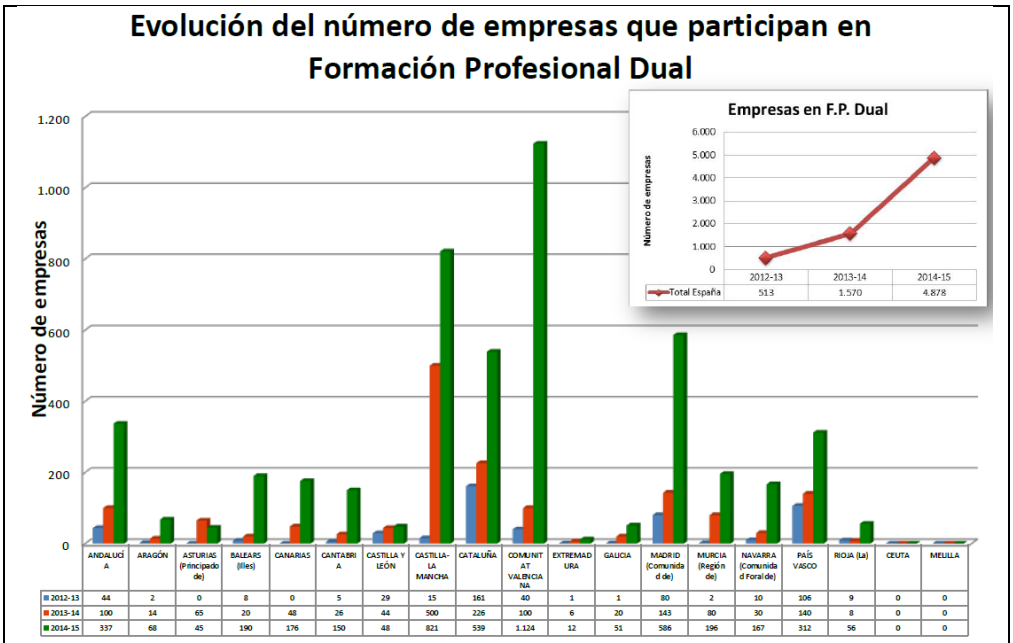
Evolution of VET students between the academic years 2007-2008 and 2014-2015.



Evolution in the enrolment in vocational training. Significant increase in the number of enrolled in the vocational training of intermediate and higher degree, slightly higher in men.



Students enrolled in vocational training according to sex by professional family. Academic year 2012-2013.



Evolution of the number of companies participating in the Dual professional training.

4 PERCEIVED QUANTITATIVE AND QUALITATIVE CHALLENGES

From of VET provider's point of view:

The craft activities have disappeared. The automatization and to use new technologies and the horizontals abilities could be developed in dual system. The dual system could be a good system to learn some competences that there are impossible to learn in the school, like upholstery and boats. It is a very good idea to develop a part of training contents in the company, example, technical office and production area, like subjects related to the organization system, it's depend of the company.

Conclusions:

- The professional wood, furniture and cork family has currently a total of 4 degrees, 2 of which are intermediate level, 1 higher level and 1 basic level.
- This professional family is one of the least popular in terms of the number of students enrolled (3.656 students during the 2013-14 course).
- The percentage of **graduates looking for employment is high** (31%), being the unemployment in this qualification also very high (25%).

See the illustration below:

GOBIERNO DE ESPAÑA · MINISTERIO DE EDUCACIÓN, CULTURA Y DEPORTE · FP Madera, Mueble y Corcho

	% DE DE TITULADOS EN ESE AÑO SOBRE DEMANDANTES DE EMPLEO	% DE TITULADOS DE ESE AÑO SOBRE PARO REGISTRADO	% DE DEMANDANTES DE EMPLEO SOBRE TOTAL DE TITULADOS	% DE PARADOS SOBRE SOBRE TOTAL DE TITULADOS	ÍNDICE DE CONTRATOS TOTALES CELEBRADOS, PARA TODOS LOS TITULADOS, CELEBRADOS RESPECTO DEL NÚMERO DE TITULADOS DE ESE AÑO	% DE CONTRATOS SOBRE TOTAL DE TITULADOS	% DE EMPLEO ENCAJADO SEGÚN DATOS DEL ÚLTIMO MES
CICLOS FORMATIVOS GRADO MEDIO LOE Y EQUIVALENTES ANTERIORES							
Carpintería y Mueble	9,01	10,93	62,56	51,58	1723,73	97,13	13,96
Instalación y Amueblamiento	24,14	29,62	13,04	10,63	711,21	22,39	8,29
TITULACIÓN GRADO SUPERIOR LOE Y EQUIVALENTES ANTERIORES							
Diseño y Amueblamiento	14,39	19,17	15,93	11,96	906,54	20,79	25,85
CICLOS FORMATIVOS GRADO MEDIO LOGSE (NO HAY TÍTULO LOE)							
Transformación de madera y corcho	Sin datos	Sin datos	Sin datos	Sin datos	Sin datos	Sin datos	Sin datos
VALORES PROMEDIO	15,85	19,91	30,51	24,72	1113,83	46,77	16,03

DATOS REFERIDOS A 31 DE DICIEMBRE DE 2013

La Familia Profesional de Madera, mueble y corcho cuenta actualmente con un total de **3 títulos**, de los cuales **2** son **de Grado Medio y 1 de Grado Superior**.

Se trata de una de las familias profesionales con **baja demanda** en cuanto al número de **alumnos matriculados** (3.656 alumnos en el curso 2013-14) .

El **porcentaje de titulados en búsqueda de empleo** es **alto** (31%), siendo el de **parados medio alto** (25%).

Para cada uno de los títulos se ha elaborado un ficha con datos singularizados, en la que se incluyen, además de los aquí recogidos, otros tales como el número total de titulados para cada año, y acum
según el Registro de Títulos, los demandantes de primer empleo, la temporalidad de los contratos, y el tipo de jornada.

Se cuenta, aunque están sin explotar, con todos los datos desagregados por sexo, y también para algunos de ellos por Comunidad Autónoma.

Recruitment data referred to the professional family wood and furniture (31/12/2013, Ministry of Education).

5 THE ROLE ATTRIBUTED TO DUAL LEARNING (APPRENTICESHIP, ALTERNANCE, ETC)

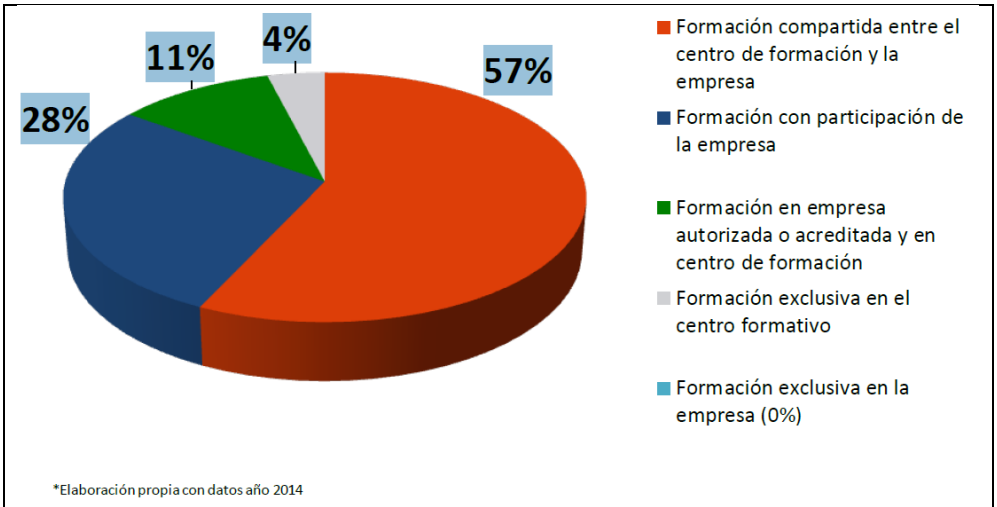
The dual training is attractive and motivating for youngsters and it contributes to reduce the early educational leave (26,5% of Spain, Eurostat 2011).

The 33% of the hours of training have place in an environment real's work.

Dual training promotes employability (52,7% of Spain, Eurostat 2011).

There are different types of application of the dual system in Spain:

- **Exclusive training in training centres**. Alternating between the training of the centre of training and the activity that is leads to out in the company. (He is currently which is being carried out)
- **Training with participation of the company**. Companies facilitate training centres, or experts
- **Training in Enterprise authorized or accredited**. Certain training modules are offered by a company and others in the training centre.
- **Training shared between the training centre and the company**. It is a sort of partnership in different proportions in process of teaching-learning between company and training centre.
- **Training exclusive in the Company**



The Dual training: modalities.

- Training shared between the training centre and the company (57%)
- Training with participation of the company (28%)
- Training in enterprise authorized or accredited (11%)
- Exclusive training in training centres (4%)
- Training exclusive in company (0%)

In opinion of the VET providers, the relationship between VET providers and companies is very good, the companies think that the students have good competencies, and the experience is that a lot of students are employed at the end of practices in company.

Actually the number of students in VET centres is low in comparison of number of companies. The number of student at the beginning is biggest in comparison with the number complete the course.

Normally, when a company has students in practices, this company repeat every year again.

6 SKILLS MISMATCH-IDENTIFICATION OF LABOUR MARKET NEEDS AND DEVELOPMENT OF CURRICULA

In opinion of the VET providers:

- There are methods that depend on the Ministry of labour that have been distorted.
- In the cycles there is not methodology to determine the needs of training, it is the Minister who decides to change the contents, and they ask some teachers.
- The process for changing is very slow.
- Normally the information about the market arrives in function of the companies around the VET centre.

7 BENEFITS ANS DIFFICULTIES ASSOCIATED TO INTERNATIONAL MOBILITY

In opinion of the VET providers:

For the students is very important to the employability, to know news languages, and other working cultures.

The currently situation is that our students are not motivated to participate in international motilities. Its depend of their age, when the students have more than 16 years old it is better, when they have less it is worst.

Difficulties:

- Language
- Different culture
- Bad experiences

Benefits:

- Open-minded students
- Employability
- Independency
- Abilities to manage different locations
- Better recruitment in jobs with more responsibility

8 MAIN RECOMMENDATIONS COLLECTED FROM TRAINING PROVIDERS AND RELEVANT STAKEHOLDERS.

To improve the VET, the VET providers recommend:

- A **dual system also for teachers**, practices in company, every year in own country and every 3 years in other countries.
- Raise the level of qualification of the workers and the management of the company.
- To define a plan to renew the equipment in companies and in training centres.
- To improve the image to the sector.
- To improve the number of students.
- Change the image to the sector, because our training it's not to do do-it-yourself.
- It is very important to make more technical this sector.
- It is very important to introduce new competences in the training contents like horizontal both for teachers and students.
- The polyvalent people are more demanded by big companies they prefer workers polyvalent and with horizontal skills, this situation is different for small companies.
- For small and medium companies is necessary change the mentality for the dual system and the importance to the NNTT and use of ICT tools.
- The relationship between VET providers and companies is very good, the companies think that the students have good competencies, and the experience is that a lot of students are employed at the end of practices in company.
- Actually the number of students in VET centres is low in comparison to the number of companies. The number of student at the beginning is bigger in comparison to those who finish the academic year.
- Normally, when a company has students in practices, this company repeat every year again.

Focus Group held at AIDIMME facilities.

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