

BENCHMARKING:

MANAGING INTERNATIONAL VET AND DUAL VET MODELS

2019





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This publication has been produced by the Observatori de l'FP of the Fundació BCN Formació Professional with the collaboration of Barcelona Activa and Xarxa FP

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This document can be downloaded from the web page of the Fundació BCN Formació Professional

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Registration no. B 26026-2019

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There are a great many cases of models that can be of inspiration or used as benchmarks in order to promote lines of work in our territory focused on improving the management of VET and dual VET. From among this multitude, this study has selected some cases that are analysed and described.

In this study we deal with the examples of two types of models corresponding to differentiated territorial settings. On the one hand it tackles models with a marked regional accent that emphasises the management and planning of VET and Dual VET. On the other hand it deals with models of cities or specific benchmark settings where the accent on the management of VET and Dual VET refers to the local or metropolitan level.

These latter cases are of importance nowadays because our cities and county councils, through the VET councils, local education boards, economic promotion or local economic development tools, are promoting measures to strengthen this training mode or thinking about doing so.

Normally the benchmark models, when we set them on how to organise and manage dual VET, are the German and Swiss systems, with a strong regional component in the governance. However, perhaps these models of success do not possess the direct applicability desired for our reality, due to the difference of systems, coordination and dynamics that the German *länders* and Swiss cantons have compared to our regional autonomous communities, the main holders of competences in planning and running VET and Dual VET. On the other hand the opinion of the social agents in these territories is very far from the role and importance that these agents have in our current model.

On the other hand our benchmark territory, Barcelona and its greater metropolitan area, has a strong and consolidated local administration (councils) and supra-local (AMB – greater Barcelona, county councils, Barcelona Provincial Council, Forum of cities with the VET Council...), which has made us focus our attention on those models of managing VET and dual VET with a strong local component in the governance of the VET system.

We are well aware that the local level has a limited series of competences to promote, plan and manage basic aspects of VET, above all if we compare them with the competences that the cases dealt with in this study possess, such as the Finnish municipalities, the Danish cities or the cities of Dublin or Brussels. Nevertheless, the models described below can inspire, help promote ideas, as well as boost initiatives and devices in our territory in order to improve how the needs of talent and our productive fabric fit with the VET system. We also believe that the examples and resulting recommendations enable the competent public administrations to have more specific and concise examples with an eye to future reforms or approaches regarding the future of VET.

We hope that the contents can be of use as a starting point to working to improve Vocational Education Training in your territories, your settings, and to sum up to contribute to the definitive push that for some time now dual VET has been waiting for.





0. Introduction: some notes regarding models and characteristics

During the second half of the 20th century, starting from a period of economic growth in the developed countries, we began to identify a need to modernise the training system in different professions based on the old "Master-Apprentice" system (Lauterbach, U. 1997). The growing demand from companies for trained professionals capable of adapting to new productive processes based on technology, innovation and a requirement of high productivity oriented towards competitiveness, in a setting that allowed a glimpse of the emergence of globalisation, led the German government, in 1969, to promote the apprenticeship regulation within a system of Dual Vocational Education Training which had already been taking place in German companies without a modern legal framework in force.

Dual Vocational Education Training, in its diverse senses and modalities, gradually became established as a benchmark in terms of Vocational Education Training in many countries, the maximum exponents of cases of success being Germany, Switzerland, Austria, Switzerland, the United Kingdom, Australia, Denmark and Finland. It is worth commenting, however, that Dual VET is not only based in a legal framework or which is only reduced to the legal modification of the apprenticeship structure, but that Dual VET is based on a close and continuous collaboration between the public administration, social agents and the training centres.

What produces a dual VET system:

The different benefits of Dual Training have been described by diverse authors and widely identified by the specialised literature. These benefits revert to all the actors involved in the training process of the pupil. As for the companies, they can intervene in the organisation and contents of the apprentices' training, in their monitoring and assessment and have available in the future workers accustomed to the very training company's procedures and business culture, its work method, machinery, tools, strategies... This is a training that invites the business world to be jointly responsible for the training of the future workers in its sector, appreciating that only from the productive world and a training based on the hands-on concept can workers be trained that bring productive growth. The companies have a key role when defining the training contents, assessment and monitoring from different possible mechanisms such as the signing of agreements between centres, participation in forums to decide training contents and



The different benefits of Dual Training have been described by diverse authors and widely identified by the specialised literature.

even as assessors and deciders of the legal texts that articulate the training curriculum.

For the students the benefits are clear in several aspects, such as the accreditation of a work experience in which they develop a series of specific professional competences, making contact with a professional sector, being placed in real job situations acquiring professional experience, motivated by professional activity and an increase in employability.

At a territorial level, the deployment of a Dual VET policy also provides certain positive synergies that materialise in the boosting of the relationship established between centres and companies. This relationship may lead to, for example, R+D+I projects, lifelong training for workers, a job pool and technical collaborations between the business world and centres.

Finally we should highlight the added social value of this training modality, since Dual Vocational Education Training contributes to the drop in Early School Leaving (ESL) and youth unemployment, both very high across the Spanish state and with figures very much higher than the European average.

Relationship Administration – Social agents– Centres

This triangle is the basis of success of the establishment of a system of Dual Training where the productive requirements of the companies and evolution of the professional competences required in the productive economy are integrated into the apprentices' training, in both the centres and in the companies, through different mechanisms where companies and social agents intervene in order to pass on the failings / possibilities of curricular modifications to the administration so that they can adapt quickly. This is the type of relationship that must be established

generally in order to start up the basic operational mechanisms of Dual Training and that each country, given their organisation, business structure, territorial administrative structure, relationship between social agents and the labour situation as a whole between the different actors involved, implements in one way or another.

In Germany, for example, the Federal Institute of Training and Apprenticeship (BiBB in its German initials) has the mission of producing the draft regulations in the VET sphere, in collaboration with experts proposed by companies and trade unions, in the company, while the state experts as well as the Länders (counties) prepare the academic contents of the training that will be undertaken in the VET centre. This system generates joint responsibility between the social agents and VET, since they have the responsibility for a large part of the contents of the training curriculum of the VET students, and sometimes the responsibility of setting the minimum competences, generating and assessing tests or exams or accrediting a dual training programme.

In Denmark, for example, the social agents (sectoral representatives, employers, trade unions and representatives of the educational institutions) are responsible for producing the training contents of VET where the training in the company represents at least 50% of the contents that Danish pupils receive. These contents are defined by committees of a sectorial nature where they define the aspects of a specific training in terms of content, length, assessment criteria, etc. In Switzerland the 600 professionals associations that make up the economy pass on to the state administrations the curricular needs of Dual VET of their specific sector. The State prepares a framework curriculum for the approximately 700 VET qualifications of the Swiss VET system and it is the 26 cantons that implement and adapt these framework curriculums to their territorial needs. In this aspect they have the backing of a powerful research institute regarding VET, created directly by the national Parliament.

These three examples show three of the countries with some of the most advanced Dual VET models and with a most extensive benchmark history where the planning or management of these courses has a common denominator: the interaction between the social agents, administration and centres, to provide the VET contents and act as corridors of transmission between the productive and training worlds.

This common denominator is put into practice in different ways, with which we can conclude that from these experiences there is no sole recipe of success to manage and implement Dual VET. Thus, the focus when designing a policy of these types must be placed within the framework of governance, in other words, in what conditions, under the responsibility of which institutions and through which mechanisms are the public Dual VET policies prepared and implemented in order to be successful and that can be maintained as a valid and feasible option.

On this question regarding the governance of VY of some authors (Valiente, O 2015), they identify certain basic aspects or basic framework of conditions to consider a dual VET policy as such. These basic aspects are:

- Training plan: circumscribed in the classroom and the workplace.
- Recognition: the training curriculum of the whole training plan is a regulated curriculum, the outcome of which is the attainment of a qualification.
- High level of qualification: the levels of qualification within the European framework are higher secondary or tertiary education.
- Paid training: the programme provides for a salary/subsidy for the apprentice which is met by the employer (not the state or the centre).
- Legal guarantees: there is a legally binding formal contract that protects the two parties.
- Training as a common thread: the activity undertaken by the apprentice must have their actual training as the main goal.
- Tutorage: the employer guarantees the tutorage of the pupil in terms of definition of a specific training plan for the student, tutorial and assessment.

Not taking into account some of these basic aspects could result in the generation of low-cost jobs instead of generating the dynamics of training-apprenticeship that is proposed by Dual VET (Rego, L et al 2015).

On developing a dual Vocational Education Training policy or system some authors (Rego, L et al 2015 and Wolter i Mühlemann 2015) consider that in the Spanish State there is a basic and necessary condition that is not met regarding the minimum requirements that a policy of these characteristics requires: the identification of gen-

eralised consensus in educational matters between the different social agents (businesspeople and trade unions) and Government, in contrast to the main countries with a successful dual training where each actor involved knows their task and is jointly responsible for it. They point out that the Spanish State, in general, needs very high economic and tax incentives for the economic fabric and businesspeople to value training inside the company and accede to collaborate with a dual training system. In this sense, and in order to generate future favourable scenarios and reduce the absenteeism of the companies, credence must be given to the results of studies that point out and quantify the benefits of Dual Training. Many of these studies are produced and directed specifically at the businessperson in order to have an influence on the state-wide business culture and to change the current perception about the return offered by training inside the company. On this aspect Wolter and Mühlemann (2015) point out in a cost-benefit study of Dual VET in Spain that this is clearly profitable under certain conditions that depend on the business context, such as company sector, size of the company, location, but also some variables where the public administrations can play an important role such as the length of time of apprenticeship, regulations of the labour market or the introduction of tax incentives... aspects in which the public administrations have a relevant role and where it seems there is a still much room for improvement in our current dual VET model.

Three classic models and a variant

There is a certain consensus in that there are three classic models of organisation of Vocational Education Training (Wolf, Dietrich 2004 and Homs, O 2008) that, depending on the management and articulation of different elements, have one or other orientation (towards the market, towards a sole state model, towards a territorially adapted model...).

On the other hand, by means of different facts and specific cases tackled in this study of the Fundació BCN Formació Professional, we point out a 4th type of model, or variant of the dual corporate model, where the municipal or supra-municipal ambit and the training centre take on special relevance in all the aspects (planning, execution, management...). This model would be a variant of the 3rd model (dual corporate) and the maximum exponents would be the Nordic countries, particularly Denmark and Finland, but also those training systems that employ a territorial division in educational areas that often make an educational area/region coincide with a city or metropolitan area, as is the case of the Irish (Dublin) or Belgian (Brussels) system.

Below we list these models and describe the main characteristics.

1. Liberal market model (maximum exponent UK)
2. Model regulated by the state (maximum exponent France)
3. Dual corporate model (maximum exponent Germany)
4. Dual corporate model, municipal variant (maximum exponent Denmark)

Characteristics of the main VET models

Aspects linked to Vocational Education Training	Liberal market model	Modelo regulado por el Estado (Francia)	Modelo corporativo dual (Alemania)	Modelo corporativo dual, variante municipal (Dinamarca)
Who determines organisation?	Negotiation between representatives of workers, businesspeople and VET suppliers	The State (normally Ministry of Education)	Trade, commerce and craft guilds regulated by state and organised by professional sector	Ministry of Education sets framework CV together with sectoral councils (chambers of commerce)
Where does it take place?	Diverse options: schools and/or companies, online	Special schools called "vocational schools"	Alternately with calendar set in company and centre.	Alternately with calendar set in company and centre.
Who determines the contents?	Market or companies individually, contents not pre-established.	State (with consultative role of social agents). Tendency towards more theoretical than practical knowledge	Joint decision State and social agents.	Local sectorial councils and centres that adapt, organise the training available according to the local needs of the companies
Who implements it in the territory	Companies and centres	State	<i>Länders (regions)</i>	Municipalities (or groups of them), centres
Who funds it	Normally the students	State through taxing the companies.	<i>Länders (Regions) and companies</i>	State and companies
Types of resulting qualification	There is no supervision of the training or accredited final exams	State qualifications.	Accreditation at national level to undertake a profession	Accreditation at national level to undertake a profession

Source: own references from HOMS, O. (2008), which quotes WOLF-DIETRICH, G. (2004).

*Yellow indicates the position for the different items considered of the Spanish/Catalan model

Our current model is halfway between the state model and with one foot in the dual corporate model (the yellow boxes refer to the placement of the current VET system in the Spanish state). On the one hand the current Spanish models consider a definition of the CVs and training goals where the role of the social agents is consultative, and on the other hand, the territorial undertaking is at a regional level. Moreover, the diverse authorities of the State (Ministry, Autonomous Communities...) and industry are backing a Vocational Education Training model with a more significant role of the dual itineraries but with a leading role of the social agents more distant than that considered in the corporate system.

Bibliography:

- ARELLANO, P. CASTRO A. (2013) "Análisis de la situación de la formación profesional desde el punto de vista de sus protagonistas." *Educatio siglo XXI: Revista de la Facultad de Educación* 31.
- EDUCAWEB (2016). Monográfico Formación en Alternancia. Gener 2016.
- GOVERN DE LA GENERALITAT DE CATALUNYA (2011) Decret Legislatiu 84/2011 d'Ordenació general de la Formació professional inicial.
- GOVERN DE LA GENERALITAT (2012) Resolució ENS/1204/2012, de 25 de maig, d'organització de la formació en alternança en els ensenyaments de formació professional inicial.
- GOVERN D'ESPANYA (2012). Real Decreto 1529/2012, de 8 de noviembre, por el que se desarrolla el contrato para la formación y el aprendizaje y se establecen las bases de la formación profesional dual.
- HOMES, O. (2008): La formación profesional en España. Hacia la sociedad del conocimiento. Colección de Estudios Sociales de la Fundación La Caixa
- LAUTERBACH U.; LANZENDORF U. (1997) El sistema dual de la Formación Profesional en Alemania funcionamiento y situación actual. *Revista interuniversitaria de formación del profesorado*, ISSN 0213-8646, Nº 30, 1997
- PARLAMENT DE CATALUNYA (2015) LLEI 10/2015, del 19 de juny, de formació i qualificació professionals.
- REGO L, ET AL. (2015) "Formación Profesional Dual: comparativa entre el sistema alemán y el incipiente modelo español." *Revista Española de Educación Comparada* 25.
- TARRIÑO A.; LLORET T. (2011) Ejemplos Internacionales de innovación en VET. *Revista ESE Estudios sobre Educación*. Universidad de Navarra. 2011 / Volumen 21.
- VALIENTE, O. ET AL (2015) Un model de formació professional dual per a Catalunya? Reptes en el disseny i implementació de la reforma Fundació Jaume Bofill. Barcelona.
- WOLF-DIETRICH, G. (2004): Los "sistemas" europeos de formación profesional: algunas reflexiones sobre el contexto teórico de su evolución histórica. *Revista Europea de Formación Profesional*, ISSN 0258-7483, Nº 32, 2004, págs. 18-26
- WOLTER, C.; MÜHLEMANN. S. (2015) La VET Dual en España ¿Un modelo rentable para las empresas?. Fundación Bertelsmann. Barcelona.

Webs Consulted:

- Aplicacions Departament d'Ensenyament <https://aplicacions.ensenyament.gencat.cat>
- Departament d'Ensenyament <http://ensenyament.gencat.cat/>
- Educaweb <http://www.educaweb.cat/>
- Formació Professional Dual a Catalunya <http://www.VETdual.cat/>
- Fundació BCN Formació Professional www.fundaciobcnVET.cat
- Fundació Bertelsmann www.fundacionbertelsmann.org



1. Structure of this study

The structure of this study is distributed into two parts, the goals of which are similar but with different focuses.

Part one: systems with a regional / state perspective

They cover systems with a regional perspective and where the state or region has a leading role or control of the highest level training system. In this part the contents are focused on legal framework and organisation of the system, description of the characteristics of the dual VET and pointing out of the main items. These referents are more readily assimilated in the state or regional legal framework of our training system. Cases covered: France, Germany, Holland, Australia, Switzerland and Spain

This section responds to different criteria: on the one hand it looks at a European VET system called "National", where the maximum exponent is France and characterised by a central control of the most important competences, as is the case of education. On the other hand we look into the German and Swiss cases, the two main exponents of the VET model and Dual VET in particular, as well as a third heavily decentralised model such as the Dutch one. Also under study is a paradigmatic case, like that of Australia, recognised internationally and one of the most innovative in questions of VET and Dual VET. Finally we look at the Spanish case in order to be able to compare systems and sub-systems at an international level with our benchmark.

Part two: cases of managing VET in cities or municipal models

We cover specific cases of cities or municipal management models with a high capacity of intervention regarding the planning of the training system in terms of contents and organisation. Even though the training competences and organisation of training systems of the cities covered in this part of the study are not comparable to the training competences in our cities, it is worth pointing out that the examples of these cities may serve as inspiration in order to improve the fit between the needs of industry, the territorial training offer and intervention to improve the functioning of Dual VET. It also deals with support devices for extrapolatable dual VET in territorial fields of a certain size, such as the city of Barcelona, the AMB (Metropolitan Area of Barcelona) or a county, and which can fit in with its capacities and competences.

Cases covered: Dublin, Brussels, Local committees of Danish training, Finnish municipalities and the school boards of Quebec.

We can observe specific cases of cities with special rules within their system such as Dublin and Brussels, in which the field of training and territorial management coincides with the same city (division of the country in several areas of operation that group together several cities or territories and which can make one of these areas coincide with the context of a city). On the other hand in this part of the study we select territorial units or devices of training management with high levels of autonomy and decentralisation and where the social agents are one of the keys that provide consistency to the planning of contents... this is the case of the Finnish municipalities, local training committees or the school boards of Quebec.

During the process of undertaking the first and second parts we identify key processes, strategic aspects, actors of reference and their competences, as well as examples of good practices.





PART ONE: SYSTEMS WITH A REGIONAL / STATE PERSPECTIVE

France, Germany, Holland, Australia,
Switzerland and Spain



2. The French VET system

The French territorial system has 7 different administrative levels, among which feature: State, regions (22) and municipalities (36,571). Educational policy is presented from a centralised focus by means of the national Ministry of Education.

Breve recopilación de indicadores

Contextual data	France
Population	67 million inhabitants (2019)
Total GDP	2.58 billion USD (2017)
GDP per capita	38.4 USD (2017)
HDI position	24th (2018)
Educational context	
% population aged 25–64 with at least higher secondary completed	75% (2015)
% population aged 25–64 with tertiary education completed	32% (2015)
% of GDP spent on education	5.53% (2012)
Expenditure education per capita	16.215 USD (2015)
Weighting (%) of the NEET ¹	7.7

Source: own production from data of the OECD and portal datosmacro.com

2.1 Legal framework and administrative organisation:

The law that governs the current French educational system dates from 1959 and is known as the Debré law, setting the mandatory school age from 6 to 16. The VET system was reformed in 1971, above all oriented towards lifelong training for workers. This reform was complemented by the "Law of Orientation and programming for the future of Education" in 2005 and which lays the basis for convergence towards the educational standards of the Council of Europe expressed in the Lisbon Strategy of 2000.

One of the distinctive traits of the French state is its centrality. In this sense it is from the national ministries, which depend directly on the national government, where the main tasks of managing and planning the questions of interest of the state are developed. The case of education is no exception. The French national ministry of education involves the main tasks in this ques-

tion (legislation, inspection, planning, hiring of teaching staff...) and leaves the regions little or no competences in education such as construction and maintenance of the centres, school transport and certain aspects of the contract of practices of the pupil, while the municipalities are concerned with the administration of the centres as well as actions against low school performance and adult education.

The specialising secondary education stages in France begin at the age of 15 (within the mandatory school age). This fact in itself represents a distinctive trait, since the pupils, in their mandatory school stage, already enter into contact with VET or Sixth-form studies.

Once the general secondary education is completed in France (the college, which goes from 11 to 15 years old) French students must choose from two routes that are designed to link up later.

¹ OECD indicator that identifies the percentage of young people who are not employed or trained among the total young population

▪ **Lycée. General or technological route:** Aimed mainly at an academic route and the attainment of a degree. This stage is from 15 to 18 and is oriented to the attainment of the batxillerat (pre-university qualification), which provides access to higher studies.

▪ **Lycée professional:** Vocational route. Chosen by 37% of students. Equivalent to VET. It can be taken with different options. Both options begin at the age of 15 (equivalent to the English 4th form) with possible links between that of less and higher standing at the end of the less standing training. Both modes can be undertaken in dual format.

▪ **Certificate of Professional Aptitude (CAP).**

Equivalent of the Spanish CFGM and VET in the UK. It is one of the oldest qualification programmes, created in 1911 and oriented towards the attainment of basic training and insertion to undertake jobs for workers and qualified workers. The time established for obtaining this qualification is 2 years (2,300 hours) and where one can choose from 200 specialities. This stage goes from 15 to 17 years old. From the attainment of the VET they can take the professional Batxillerat (pre-university) with two additional years of study. Almost 40% of pupils that complete the VET choose to carry on studying the professional Batxillerat.

▪ **Professional Batxillerat or Baccalauréat Professionnel**

Equivalent to the Spanish CFGS or Certificate of Higher Education (HNC) in the UK. Aimed at developing highly qualified tasks. It lasts for 3 years (3,500 hours) and offers 80 specialities from 19 professional fields. This qualification offers access to university.

2.2 French dual training.

Vocational Education Training in France consists of two modalities of training in a company. The majority of the dual VET offer is based on typical alternate training even though it also considers training offers with dual training, known as CFA. Currently 15%² of VET students in France do the dual modality and this is done by means of specific apprenticeship contracts.

▪ **Alternating training:** regarding the case of alternating training, in the case of the CAP, the training time in the company is between 420 and 560 hours out of a total of 2,300 (approximately 20%) and in the VET is 770 hours out of total of 3,500 (22%).



The main professional fields that develop these centres are: the food industry, retail commerce, construction, public works, hotel/catering and tourism, services for people, automobile and electronics sectors.

▪ **Dual Training:** it takes place in the Apprenticeship Training Centre (CFA). These centres are made up of the regional council, chambers of commerce, teaching centres, associations. These actors choose the head of the centre. It is one of the few attributions in education that considers the regional administrative level even though the pedagogic control of the contents continues to be national. The main characteristics of these centres are:

- Aimed at young people aged between 16 and 25, adults over 25 can attend under specific conditions.
- The time the apprentice spends in the company ranges between 60% and 75%, accompanied by a tutor who provides them with the know-how and working methods while supervising them. The average time the apprentice is trained in the company is between 400 (CAP) and 675 hours/year (VET).
- The main professional fields that develop these centres are: the food industry, retail commerce, construction, public works, hotel/catering and tourism, services for people, automobile and electronics sectors.
- There are two procedures that a future dual VET student must go through:
 - Seek a company where they undertake their dual training. They can find this company by themselves (presentation of candidature), contact the chambers of commerce, contact trade guilds or trade unions, go to an employment office or go to the CFA centres for information about companies interested in training students in a dual system.

² Own production from data from the portal [education.gouv.fr](https://www.education.gouv.fr/cid57096/reperes-et-references-statistiques.html#Les%20C3%A9tudiants) <https://www.education.gouv.fr/cid57096/reperes-et-references-statistiques.html#Les%20C3%A9tudiants>

- Once the future student and the company reach an agreement, the student can attend the CFA centre to begin their dual studies.
- The training in company is developed under the formula of a contract of employment in which the apprentice receives a salary calculated according to the age and years of seniority of the apprentice according to the French minimum salary which in 2019 is of €1,521 gross monthly. The calculation of the salary to receive is made from the following matrix:

Calculation of the salary of the apprentice in Dual Training in France based on the IMS (Inter-professional Minimum Salary)

Seniority	16-17	18-20	21 and over
1st year	25 %	41 %	53 %
2nd year	37 %	49 %	61 %
3rd year	53 %	65 %	78 %

Source: French Ministry of Education

- The social agents adapt training contracts to specific objectives through sectorial agreements in order to develop emerging profiles.

The Lycées des métiers (Trades college):

These types of training centres are characterised by providing a train offer and qualifications based on a specific trade such as car mechanic (automobile trade college) or administrative worker (administrative skills college). These centres offer both training linked to VET and other levels of higher education or lifelong training and they are normally linked to educational excellence, good results. These centres have the collaboration, through agreements, of the sectorial organisations of the territory and specific economic sectors. This model is a concept of centre in which there has been a process of clustering, in which different training levels in a specific subject, economic and institutional agents coincide in the same space in order to create synergies and collaborations in a very specific aspect of the range of training on offer.

2.3 Main characteristics of the offer:

- The main reason for carrying out public policies from a centralised state perspective is to offer public services as uniformly as possible in the different territories. This approach has the strong point of uniformity and equality for all citizens before a service or public policy but has



as a weak point the difficulty of adaptation to specific and concrete situations of territories with differentiated needs or realities.

- One factor that may raise interest from the point of view of the Spanish system is the overlapping of the mandatory stage and the choice of route. This policy might turn into an advantage regarding the reduction in the cases of school dropout even though "obliging" the pupils to spend a full academic year in the chosen option. It should be pointed out, at least in Catalonia, in the case of the VET the highest dropout rates are in the 1st year (CTESC 2010), something that perhaps could be cushioned with a public policy similar the one considered by France.
- Another thing to point out about the French Dual VET policies is the definition of specific centres to do these studies (Apprenticeship Training Centres) and the presence of clustered Dual VET centres (Lycée des Meriters). This policy highlights the major and key role played by the centres in the Dual Training policies.



Bibliography

- CEDEFOP (2013). France VET in Europe – Country report 2013. Thesalonika: Cedefop
- CTESC (2011). Informe sobre el risc de fracàs escolar a Catalunya. Col·lecció d'Estudis i Informes. N° 26.
- URTEAGA, E. (2010) La formación profesional en Francia. Universidad del País Vasco.
- MINISTÈRE D'EDUCATION (2011). La educación escolar y formación profesional en Francia. Delegació de comunicació del Ministeri d'Educació Francès.
- MINISTÈRE DES AFFAIRES ÉTRANGÈRES (2007). La France à la loupe: El sistema educativo en Francia.

Webs consulted

- Web page of the French government <http://www.gouvernement.fr/action/le-decrochage-scolaire>
- Web page of the French Education Ministry <http://www.education.gouv.fr/>
- Web page EDUSCOL <http://eduscol.education.fr/> (consulted 14 April 2016)
- European portal for the mobility of young people in Vocational Education Training <http://mavoleproeurope.onisep.fr/>
- Portal education.gouv.fr
- CEDEFOP European database on apprenticeship schemes <https://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes/country-fiches/france>

■ Of interest is the way of defining the salary of the Dual VET apprentices based on a double scale between and years of experience in the company where the apprentice is training. This model distances itself from the sole percentage to receive of the IMS and may contribute to an increase of incentives for apprentices not to drop out of studying.

Summary table of Dual VET in France

	FP Dual francesa
Weight in volume of Dual VET students	15%
Consideration of hours staying in company	Certified
Who determines the training content in the company	Ministry
Salary	Incremental with age and course. Minimum of 25% of the IMS, maximum of 78%
Time spent in company	Between 60% and 75% of training. Between 400 and 675 hours / year
Periods in company	By agreement
Accreditation	Accreditation not required
Level of training achieved	It depends on the level of studies, post-mandatory secondary or higher

3. The Dutch VET system:

The Dutch territorial system has three levels: state, provinces (12) and municipalities (415). Educational policy is considered from a centralised perspective through the Ministry of Education (legislation, funding, inspection, planning...), the provinces having little or no competence in education, while the municipalities are responsible for the administration of the centres, actions against low school performance and adult education.

Mandatory schooling in Holland is until 16 and at 12 they begin secondary education based on three well-differentiated educational options that end at different ages, at 17 or 18-19. This system lets the student choose their route according to their expectations and/or preferences.

Brief summary of indicators

Contextual	Holanda
Population	17 million inhabitants (2017)
Total GDP	826.2 billion USD (2017)
GDP per capita	48,223 USD (2017)
HDI position	10th (2018)
Educational context	
% population aged 25-64 with at least higher secondary completed	75% (2015)
% population aged 25-64 with tertiary education completed	34% (2015)
% of GDP spent on education	5.51% (2012)
Expenditure education per capita	2,123€ (2012)
Weighting (%) of the NEET	3.8 (2017)

Source: own production from data of the OECD and portal datosmacro.com

3.1 The legal framework and administrative organisation

During the 1990s Holland reformed its educational system through the 1996 law called Wet Educative Beroepsonderwijs (WEB), better known as the law of Vocational Education Training and Adult Education. This law compiled diverse basic aspects that they defined, of which the most important are: the registered integration of all the actors and types of secondary and vocational education, the decentralisation of the competences of the State towards the VET centres, the creation of the National Structure of Qualifications and the creation of regional centres of reference in contrast to a dispersed network of small centres.

The administrative organisation of the Dutch Vocational Education Training system has three levels:

■ **The national level:** Made up of different ministries with different functions and tasks. The ministries linked to Vocational Education Training and Adult Education are: Ministry of education and culture (main body responsible for the educational system), the Ministry of Agriculture (responsible for training in the agricultural sector), the Ministry of the Economy (it takes part in lifelong learning and recognition of informal training) the Ministry of Employment (it participates in apprenticeship programmes) and the Ministry of Justice (it supports educational programmes for the integration of specific groups). A total of 5 ministries are involved in the management of VET at a national level.

■ **Sectorial level:** a second organisational level of VET is sectorial and they run national skill centres that represent a specific economic sector. These types of actors are only found in Holland, so that they cannot be compared in tasks and functions with

another known actor. In total there are 19 centres with these characteristics called Kennijcentrum Beroepsnederwijs Bedrijfsleuen (KBB) which act as a nexus between educational planning and the world of work. These centres are linked together, have existed since 1954 and it was in 1996, with the application of the WEB, that they defined and homogenised their composition and functions. These centres are made up of businesspersons, trade union representatives and educational centres of a specific productive branch. The KBB have diverse functions of major importance in the country's VET system, such as developing professional qualifications, creating a large enough network of companies from the sector so that all the students in the system have the training in workplaces. They are also responsible for the increase in quality and professionalization of the studies linked to their branch, defining professional profiles of the sector so that later the competent public administrations can transform these profiles into qualifications to be integrated into training plans and watch over the homogenisation of the quality and level of the exams in the linked qualifications.

■ **The regional or local level:** this level of decentralisation mainly runs the same educational centres and is mainly based on administrative aspects of the centre, selection of personnel and a generous degree of pedagogic freedom. There are about 40 regional VET centres called Regionaal Opleidingscentrum (ROC) throughout Holland with a capacity of between 2,000 and 24,000 students, the average being 10,000. On the other hand the centres that offer qualifications linked to the agricultural sectors are differentiated from the rest and there is a total of 12 as well as 13 centres more specialised in specific branches.

As has been shown, once the primary education stage has been completed, pupils can choose between three different routes. All three options may take place in the same secondary school and this is, in fact, quite common. We should specify that this decision must be taken at the age of 12. In order to help in this decision-making, at the end of primary

education, all pupils take a rigorous exam on which they can base their decision. At this time they also receive the evaluation of the school.

The post-mandatory stages of education in the Dutch system are the following:

■ **Preparatory education for university (VWO):** it takes place between the ages of 12 and 18 (6 academic years). This type of education is taken by 21% of pupils that end primary education and lead to university entrance (WO). The Dutch university is heavily directed at scientific disciplines and has an eminently investigative finality in contrast to an orientation towards the labour market as occurs in the Spanish case.

■ **General secondary education (HAVO):** takes place between the ages of 12 and 17 (5 academic years) and leads to non-university higher education (HABO). This type of education is taken by 20% of secondary students. Non-university higher education is not exactly comparable with the Spanish VET since the range of professions and comparative time spent differ greatly. Students who graduate in non-university higher education are mainly oriented towards the labour market even though they can choose to take a university master's degree once they graduate.

■ **Preparatory Vocational Education Training (VMBO):** takes place between the ages of 12 and 16 (four academic years) and is taken by 56% of secondary students. This type of training consists of 4 branches: engineering and technology, economics, agriculture and social care. Within these routes the pupils can choose between a route that will prepare them for medium level vocational courses (MBO) or another route that involves them doing work experience in companies in order to enter into the labour market.

The first year of the course of the three modalities is the same, followed by one or two academic years of basic training for all three routes. In order to complete this stage, the pupils must pass a national test (compliance of national standards) in order to pass on to a second stage in which the pupils



The KBB have diverse functions of major importance in the country's VET system, such as developing professional qualifications, creating a large enough network of companies from the sector so that all the students in the system have the training in workplaces.



of two of the three possible routes (Preparatory education for the university and General secondary education) must choose from among the following four options: Science and Technology, Science and health, Economics and society and Culture and society. Nevertheless, the pupils, with the optional curricular part, can take two options at the same time if they want. It should be noted that the three levels considered are permeable and access is possible to a higher modality but going back one academic year.

Worth mentioning is language teaching since learning a second or third language represents 14% of class time in secondary education. The leading role of English in vocational studies has a repercussion since many mandatory subjects are given in English. In university terms English is even more present and some university studies are given completely in this language.

3.2 Dual VET in Holland:

VET students in Holland can choose from two different VET routes which differ according to the percentage of contents / training in the company. Only students aged between 15 and 24 can choose a dual route. Approximately one third of VET students choose one of these dual routes.

- Teaching based on the school (EBE) where a minimum of 20% of the contents take place in the company up to a maximum of 59%.
- Teaching based in the workplaces (EBCT) where a minimum of 60% of the contents takes place there.

There are differences between the two programmes, the most substantial being:

- In the EBE programmes 72% of the students are under 20 while in the EBCT 66% are under 20. This difference has been caused by the world crisis, in which the EBCT programmes suffered a drop in popularity, caused by new generations of young people tending towards the EBE programmes (Koudahl, P. D. 2010 & CEDEFOP 2014a). Currently 1/3 of VET students follow the EBCT option. Both routes have the same category in the labour market.
- The area in which most students are present in the EBE route are Economics and Services (36.6%) / Health and Wellbeing (35.6%) while in the EBCT route they are Technology (45.3%) followed by Economics and Services (25.6%) (CEDEFOP 2009).

All the routes are established from a specific dual VET contract between the company and the apprentice where the salary is agreed. The length of the stay in the company is usually from 2.5-3 years but the scope may range from 0.5 to 4 years depending on the level and speciality of the training.

These levels of specialisation are:

- Initial level programmes (1-1,5 equivalent to EQF1)
- Basic vocational programmes (2 years, equivalent to EQF2)
- Professional education programmes (3 years, equivalent to EQF3)
- Professional training programmes (3-4 years equivalent to EQF4)

Conditions

The conditions are established by the specific dual training contract that the apprentice and company sign. It should be said that pay varies significantly according to the sector in which the dual route takes place, since it is the social agents of the sector themselves who define this salary through collective agreements.

In any case the apprentice pay cannot be less than the inter-professional minimum salary in force, which for those aged over 22 is €1,615.80€ (data from 2019)³. It should be said that the minimum wage in Holland is incremental until the age of 22, so that for those aged below 22 the IMS is also lower.

Supervision

The abovementioned sectorial skill centres (the Kennijcentrum Beroepsnederwijs Bedrijfsleuen) are responsible by law to control the quality and continuous improvement of training in the company. They also operate as teacher trainers.

Motivation and cost of Dual VET for the companies:

The average cost for the companies is €1,750 for the EBE programmes and €8,400 for the EBCT ones. However, the companies receive an annual subsidy of €2,500 for each dual VET place that the companies generate. In 2009 the amount provided by the Dutch state to promote this type of training was €180M (CEDEFOP 2009).

Summary table of dual VET in Holland

	Dutch Dual VET
Weight in volume of Dual VET students	Between 10 and 30%
Consideration of hours spent in the company	Certificated
Who determines the training content in company	Ministry, sectorial organisations, social agents.
Salary	Minimum wage in force, between €1,615€ (2019) for over-21s
Time spent in the company	Minimum of 610 hours per year in company (minimum of 75% in company)
Period in company	4 days per week in company
Accreditation	Company must be accredited by specific organism composed of VET centres and business organisations
Training level achieved	Depends, between EQF 1-4

³ <https://www.government.nl/topics/minimum-wage/amount-of-the-minimum-wage>

3.3 Main characteristics of the case:

- Dutch Vocational Education Training is regulated by a specific law. In this case dual VET is not regulated by a general law in which other types of education are included but which also has its own entity in the legal section.
- The Dutch system has opted for a network of benchmark centres (macro-centres) in order to concentrate offer and resources in contrast to a diluted network of small centres all around the territory.
- One of the most noteworthy traits of the Dutch system is the planning and management of the qualifications, and in this case there are 19 entities, each one specialised in a productive branch and made up of different agents. These entities enable an open and constant dialogue with the labour market and its immediate evolution, something that serves to update almost in real time the qualifications system.
- The structuring of higher training in Holland differs greatly from Spain, since it is separated into two types of training depending on its final orientation. In Holland if the student wants to end up in the labour market with a higher qualification, choosing the non-university higher education route is perfectly comparable to an engineering route, whereas if they want to go into research, they choose the higher university route.
- Regarding Dual VET of note is the possibility of choosing the route according to the time one wants to devote to training in a company and the different profiles that each of the two routes possess.
- Also of note is the state subsidy to motivate Dual VET in Holland as well as the role of quality that the skill centres exercise in the country by law.

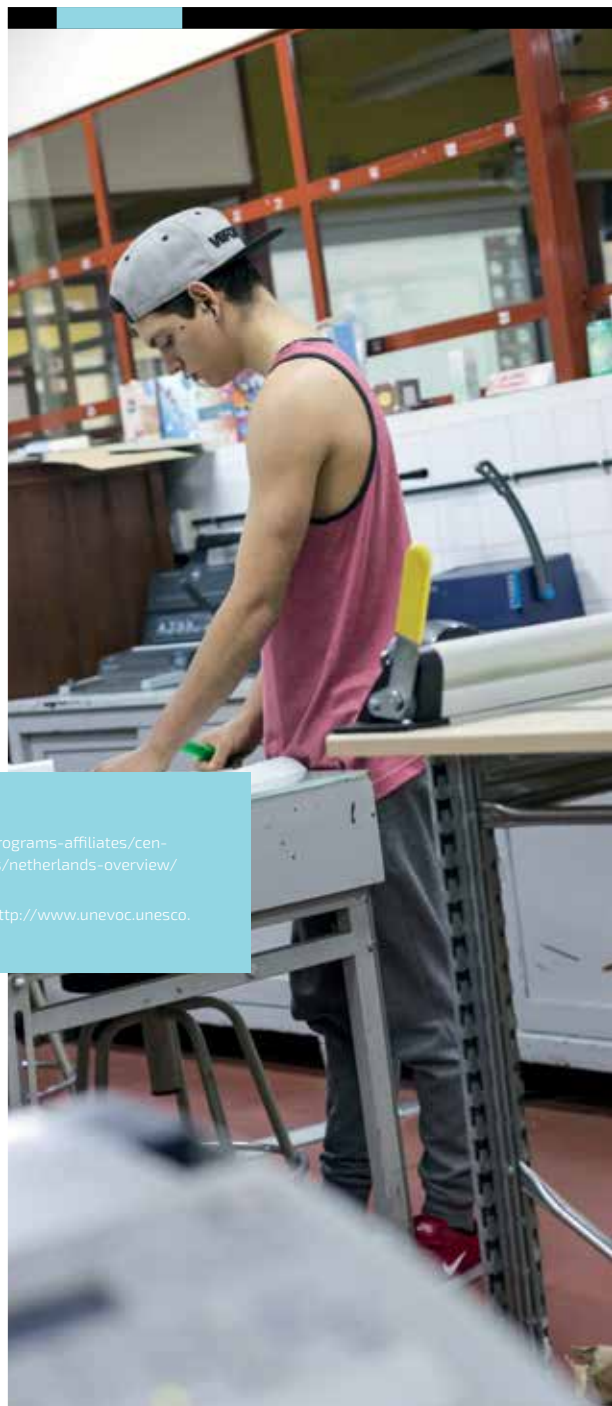


Bibliography

- CEDEFOP (2016). Vocational education and training in the Netherlands: short description. Luxembourg: Publications Office. Cedefop information series.
- CEDEFOP (2009). Netherlands. Vet in Europe - Country report Thesalonika: Cedefop
- CEDEFOP (2014A): Spotlight on Vet. The Netherlands. Thesalonika: Cedefop
- CEDEFOP (2014B). "VET in Europe, Country report, Netherlands". Thesalonika: Cedefop
- CEDEFOP (2004C). "Vocational education and training in the Netherlands, short Description". Cedefop Panorama series, N96. Thesalonika: CEDEFOP.
- FUNDACIÓ LA CAIXA (2005). "Los sistemas educativos Europeos ¿Crisis o transformación?" Col·lecció estudis socials, N 18. Barcelona: Fundació La Caixa.
- KOUDAHL, P. D. (2010). Vocational education and training: dual education and economic crises. Procedia-Social and Behavioral Sciences, 9, 1900-1905.
- MINISTERIO DE EDUCACIÓN. (2006). El mundo estudia español 2006. Países Bajos.. Extret el 17 de març de 2011, del lloc web del Ministeri d'Eduació
- OCDE (2008). Learning for Jobs. OCDE Reviews of Vocational Education and Training. Netherlands

Webs consulted

- Center on International Education Benchmarking: <http://www.ncee.org/programs-affiliates/center-on-international-education-benchmarking/top-performing-countries/netherlands-overview/netherlands-school-to-work-transition/>
- International Center for Technical and Vocational Education and Training <http://www.unevoc.unesco.org/go.php?q=World+TVET+Database&ct=NLD>



4. The German VET system:

Germany is organised in the form of a Federal Republic. Its territorial organisation is structured by means of 16 Länders (equivalent to regions), a half administrative level between Länders and municipalities which are the districts (409) and finally the municipalities (11,261). These three levels are the most important within the administrative structure and management of the different basic services of the country.

It should be said that the legislation and management of education depends on each specific Länder, with which we can identify diverse models of primary, secondary and university education, examinations and enrolment requirements. This is one of the main characteristics of the German model, which cedes real autonomy of management to its territories, in contrast, for example, with the French model, very much determined by the state management and legislation in many aspects, particularly in education.

Brief summary of indicators

Contextual data	Germany
Population	82,886,000 (2018)
Total GDP	3.677 million USD (2018)
GDP per capita	40,800 (2015)
HDI position	5th (2018)
Educational context	
% population aged 25–64 with at least higher secondary completed	86.8% (2015)
% population aged 25–64 with tertiary education completed	27.1% (2014)
% of GDP spent on education	10.98% (2015)
Expenditure education per capita	17,036 €
Weighting (%) of the NEET	3.8 (2017)

Source: own production from data of the OECD and portal datosmacro.com

4.1 Legal framework and administrative organisation

The description of educational competence in Germany comprises what is called the Basic law for the German Federal Republic (Grundgesetz für die Bundesrepublik Deutschland) from 1949 and which is the equivalent to its Constitution. This law gives the Länders the power to legislate the education system, higher education and adult and lifelong education in its territory. Given this characteristic the Länders pay for 70% of the education in their territories and the municipalities 20% (Fundació la Caixa 2015). School attendance in Germany is optional between 3 and 6, becoming mandatory from 7 years old. Depending

on the Länder this mandatory nature continues until the age of 16 or 17.

In the specific case of VET, the Law governing this type of education, the Berufsbildungsgesetz, dates from 2005.

Secondary education: tripartite school and early derivation of route.

An outstanding feature of the German education system is the "early" classification of primary students towards a specific educational route that will lead them to university, VET or other training paths. At the age of 10–11 German pupils are redirected towards 3 differentiated routes according to the qualifications obtained and the criteria

of the teaching staff who have assessed them during the last years. In the majority of cases, the result of this derivation is respected by the parents. Once the pupil has been directed to one of the three routes they begin Sekundarstufe I, the equivalent of basic secondary school and after that, Sekundarstufe II, equivalent to higher secondary education. The most common ages of the pupils doing Sekundarstufe II ranges from 17 to 19.

Once primary school is completed and Sekundarstufe begins, the three possible routes are:

- **Hauptschule** (until 16), which redirects the pupils towards VET routes, normally involving developing manual skills. The VET courses that give access to this modality normally last 3 years and restrict access to the university in some cases. On ending this stage the pupil can choose to go to the different VET schools:

- Basic Vocational Education Training
- Preparatory school of professional training
- Professional schools from the health ambit
- Specialised schools in Vocational Education Training.

The three first options are finalising training programmes and lead to the labour market whereas the last case (Specialised schools in VET) enable the student to continue a route that can end in the university.

- **Realschule:** common ages 16-17. It is an intermediate level between the routes focusing on manual work and academic qualifications but within a professionalising route with certain theoretical and academic contents. It enables students to accede to:

- Higher schools of Vocational Education Training
- Technical Institutes (which lead to university)

- **Gymnasium:** common ages 18-19. This route is preparatory for higher instruction levels. It ends with the Abitur test (equivalent to A-levels for university entry), required to enter the university. It is a more demanding level regarding qualifications and time devoted. Students who leave the Gymnasium can accede to:

- University.
- Higher schools of Vocational Education Training
- Technical Institutes.

In some Länders there is a fourth alternative to the three majority routes with vocation to not separate the pupils so early according to their competences and abilities. This route is the **Gesamtschule** in which the pupils continue

the studies in the same type of centre doing common subjects and others with separation by levels. It is from 16 when these students tend towards a professionalising route (Lehre) or continue for 3 years in the centre to complete the route doing the Abitur to enter the university.

4.2 Dual VET in Germany

During the second half of the 20th century, from a period of economic growth in the developed countries, a need began to be identified to modernise the training system of different professions based on the old "Master-Apprentice" system (Lauterbach, U. 1997). The growing demand by companies for trained professionals capable of adapting to new production processes based on technology, innovation and a requirement of high productivity oriented towards competitiveness, in a setting that foresaw the emergence of globalisation, prompted the German government to promote, in 1969, the regulation of apprenticeship within a system of Dual Vocational Education Training that had already been in progress in German companies without a modern legal framework in force.

From this came the German model of Dual Vocational Education Training, and has become a benchmark in terms of vocational learning in a multitude of countries being the maximum exponents of cases of success, apart from Germany, in Switzerland, Austria or Australia.

Today approximately 50% of all German secondary students choose a training route related to Dual VET, which represents an annual entry into the Dual VET system of between 700 and 800 thousand new pupils and at least 54% of the population has a qualification attained within this training mode. (German Trade & Investment, 2012). From among the students who choose VET, almost 75% choose a dual type of route⁴.

People of any age can do dual training, the 19-24 age group being the one with most weight (60%).

Actors who intervene

In the planning of Dual VET several actors are involved with different levels of intervention:

- **State:** in collaboration with specialised public agencies (BiBB), trade unions, employers' associations and experts the regulation is produced in the sphere of VET training in the company (70% of the course time).

- **Länders:** it produces legislative drafts regarding basic training which is undertaken in the VET cen-

⁴ <http://www.cedefop.europa.eu/es/publications-and-resources/data-visualisations/apprenticeship-schemes/scheme-fiches/dual-vet>

tres (30% of the course time). It pays the salaries of the teachers, is responsible for the school buildings and also supervises the activity of the chambers of commerce.

■ **Chambers of commerce:** they organise the final exam of the students. The aim is to standardise the levels of competences of learners. They issue the qualification with official recognition if they pass the exam. They are also in charge of supervising the quality of Dual VET teaching in the companies and they take part in the processes of updating the training contents. Moreover, German chambers formalise the apprentice contracts, undertake functions of mediation, training and assessment of companies.

■ **Social agents:** they negotiate the payment of the training, undertake functions of observers of the learning process, take part in the definition of the standard contents of the training in the company and form part of the examination body.

■ **Companies:** not all companies can develop a dual VET programme, but only those with the pertinent accreditation and which comply with some minimum standards of quality. The company is where 70% of the dual training takes place and assumes approximately 90% of the costs of the training in the company and the function of selecting students. The period of time in the company will vary between 2 and 3.5 years.

Development

The key aspect of the German Dual VET system is the training contract, issued by the chambers of commerce, very similar to a work contract that regularises the conditions of apprenticeship, the labour conditions, the salary (around €800 euros net monthly provided 100% by the company) and holidays. Through this contract the company offers a structured training under real labour conditions, with instructors in the company and appropriate equipment. In 2012 approximately 550,000 apprentice contracts were signed between apprentices and companies.

Results

The German government associates the low youth unemployment rate in Germany (7.9) to a great extent with the Dual VET policies developed, since 68% of young people who take part in dual training programmes end up being hired by the training company (German Trade & Investment, 2012).

Besides these results it should also be pointed out that the extensive participation of companies in this type of training, since 83% of companies with less than 500 employees and 90% of companies with more than 500 take part in dual apprenticeship processes, something that meant in 2011, 455,000 companies took part in dual training routes.

Summary table of dual VET in Germany

	Dual VET Germany
Weight in volume of Dual VET students	74.3%
Consideration of hours spent in the company	Within the training programme
Who determines the training content in company	<i>Länders / Chambers of Commerce</i>
Salary	Depends directly on sector, from €500 to €1,050
Time spent in the company	Approximately 66% of training time
Period in company	Days in the week, 1-3 full weeks, 1-11 full months, 1-2 years in the company prior 1 year in the centre. Other distributions can be agreed
Accreditation	Stay in company accredited by chambers of commerce
Training level achieved	Three types: Intermediate, Higher and Specialist

4.3 Main characteristics of the case

- Normally the German case is known for its Dual VET model, a model exported to several countries and which has produced results due to its conception of learning in the workplace accompanied by professionals, in conditions that ensure this learning.
- The German dual system is a clear exponent of co-responsibility in education. The state, social agents and companies all have different levels of responsibility in this type of education. This co-responsibility is effective in that it depends on many agents of approval and renewal of training curriculums and management of education in contrast to the merely consultative role given to these

agents in other countries, such as Spain or France. This co-responsibility is also a factor of success in the involvement of the business fabric in dual training.

- The model of choice of routes is also an outstanding factor that defines, regarding the skills and abilities of the children, their future route. The results of this type of policy of separating pupils is not the object of this study but it is worth underlining some opinions focused on pointing out that this system results in many migrants and families without resources ending up being directed towards the route called Hauptschule, leading to manual or technical-type professions.

Bibliography

- BIBB (2005) Vocational Education Training Act. Ministeri d'Educació i recerca d'Alemanya. https://www.bibb.de/dokumente/pdf/bmbf_berufsbildungsreformgesetz_en.pdf
- DIETER EULER (2013) El sistema dual en Alemania – ¿Es posible transferir el modelo al extranjero?. Fundació Bertelsmann, Barcelona.
- EDUCACWEB (2016) Consejos para estudiar VET Dual en Alemania (Alba Huber). Article online <http://www.educaweb.com/noticia/2016/02/24/consejos-estudiar-VET-dual-alemania-9275/>
- FUNDACIÓ LA CAIXA (2005) Los sistemas educativos europeos ¿Crisis o transformación?. Col·lecció estudis socials Num 18. Barcelona.
- FUNDACIÓN UNIR. Universidad Internacional de la Ríjia (2012) El modelo de educación Secundaria alemán ¿Alternativa para el nuevo Bachillerato español?. Edició digital. <http://www.unir.net/educacion/revista/noticias/el-modelo-de-educacion-sekundaria-aleman-alternativa-para-el-nuevo-bachillerato-espanol/549201448648/>
- LAUTERBACH U.; LANZENDORF U. (1997) El sistema dual de la Formación Profesional en Alemania funcionamiento y situación actual. Revista interuniversitaria de formación del profesorado, ISSN 0213-8646, Nº 30, 1997
- PORTAL ALEMANIA (2015). La Formación Profesional Dual en Alemania. Article publicat on line <http://www.portalalemania.com/trabajar-en-alemania/2015/09/19/la-formacion-profesional-dual-en-alemania.html>
- GERMANY TRADE & INVEST (2014) Vocational Education Training "Made in Germany" Germany's Dual System of Vocational Education and Training (VET). Ministeri d'Economia i Energia Alemanya https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/BLG/blg--most-wanted--dual-vocational-training-in-germany-pdf.pdf?v=4

Webs consulted

- Eurydice Alemania: <https://webgate.ec.europa.eu/VETfis/mwikis/eurydice/index.php/Germany:Overview>



5. The Swiss VET system

The Swiss state takes the form of a Confederation and this is made up of 26 cantons (regions) with extensive competences in crucial aspects such as taxation, managing education policy, social services and policing. Each canton has its own constitution (which must be compatible with the Constitution of the Confederation). The cantons are divided into communes (municipalities), with a total of 2,600 and among their attributes features the maintenance of school buildings.

Brief summary of indicators

Contextual data	Switzerland
Population	8.5 million inhabitants (2017)
Total GDP	678.9 M USD (2017)
GDP per capita	80,189.70 USD (2017)
HDI position	2nd (2018)
Educational context	
% population aged 25-64 with at least higher secondary completed	88.2% (2015)
% population aged 25-64 with tertiary education completed	41.7% (2015)
% of GDP spent on education	15.53% (2015)
Expenditure education per capita	24,848 USD (2012)
Weighting (%) of the NEET	6

Source: own production from data of the OECD and portal datosmacro.com.

5.1 Legislative framework and administrative organisation

In Switzerland there is not a Ministry of Education as such but it is the figure of the Confederation that assumes the few competences reserved in this aspect. According to article 63 of the Swiss Constitution, the Cantons "are responsible for the educational system" of their territory. This results in 26 educational systems in Switzerland (one per canton) even though with aspects in common agreed in consensus between the different cantons or groups of cantons. This structure of government is typical of a decentralised structure associated with federal systems.

The Confederation has competences in post-mandatory education and some basic aspects of the school system. The mandatory ages of schooling are from 6 to 15.

In terms of VET, Switzerland passed a law in 2002 that structures the base of this training, defines the contract of apprenticeship and places each actor in their functions.

Secondary education

As in Germany, the secondary school is divided into two stages: Secondary I and Secondary II:

- Secondary I goes from 12 to 15 (within the mandatory ages). At this point the children are separated by level according to abilities and capacities shown according to the criteria of the teaching staff. In some cantons there is also a test to define the students' level.
- Secondary II. This stage is placed outside the mandatory stage and the ages go from 15 to 17. In this stage the student can choose between:

- **Batxillerat**, the centres are called Lycée (French) or Gymnasium (German). This route ends with a test called "Matura", which is the equivalent of the Spanish pre-university exam or A-levels in the UK, and which also leads to the university. The Batxillerat route is chosen each year by 20%-30% of students leaving Secondary I.
- **Schools of general culture:** It is a minority type of study (10% - 20% of students leaving Secondary I choose this option), lasts three years, without work experience, which once completed leads mainly to **higher schools** which offer non-university tertiary specialised training (equivalent to VET) and organised in 7 large professional groups (Technical, Hotel & Catering, Economic, Agriculture, Health, Social and Visual Arts). In this sense there is, for example, "the high school of ambulance care" or "the higher school of children's education". Once the training in the Higher School is completed, the student has the chance to accede to university-type studies.
- **Initial Vocational Education Training:** Conocida como "aprendizaje", esta vía formativa es elegida anualmente por el 60 % de los alumnos salientes de secundaria y, como ya se ha especificado al inicio del caso suizo, este tipo de formación se articula mediante una ley específica de 2002. La totalidad de este tipo de formación es dual. Los programas de FP en Suiza pueden tener una duración de 2 a 4 años. Los programas de 2 años y los de 3-4 años tienen niveles diferentes dentro de la escala de cualificaciones: el de 2 años (atestación federal de capacitación) da acceso a uno de 3-4 años; y los de 3-4 años (certificado federal de capacitación) dan acceso a las escuelas superiores, que, como cabe recordar, son estudios terciarios no universitarios.

5.2 Dual VET in Switzerland:

Approximately 85% of the initial VET offer in Switzerland is dual. The training takes place in the company for ¾ of the time and this may last for between 3 and 4 years according to the programme and specific canton. The minimum age of access to an apprentice contract (that leads to dual VET) is 15 and there is maximum age limit.

The range of qualifications is approximately 250. The relationship between the centre and the pupil is formalised through a specific contract of dual training (contract of apprenticeship), which must be approved by the pertinent cantonal authority, and the compa-

nies that take in the pupils must be accredited for this purpose. Dual training has a ranking of post-mandatory secondary training (formation professionnelle initiale) as well as specific routes of a tertiary level (Bachelor HES).

Every year thousands of apprenticeship places emerge in the labour market in the search for candidates and they are the future learners who have to apply for the place by means of a very similar process to that of job-seeking (presentation curriculum, personal interview and/or aptitude tests...). For candidates with difficulties in acceding to apprenticeship places, the Confederation has a fund to carry out special insertion plans. All the apprentices must start their time in the company as learners between the 1st of June and 31st of August each year.

The payment for the students increases each year and depends on the specific training sector (training branch) and canton. Normally during the first year the monthly payment is €540, during the second year €715, the third year, €1,100, and during the 4th year €1,200. The law does not set a minimum wage as occurs in the cases of other countries (normally linked to the inter-professional minimum wage) but the professional organisations periodically publish recommendations of salary scales that are normally respected by the training companies.

The apprentices have the opportunity to train in diverse companies since, due to the high degree of specialisation of small and medium-size companies, often a company cannot guarantee 100% of the training curriculum to the student, giving them the possibility to choose stages in different companies (with a new contract for each case). Between 30% and 40% of the apprentices are hired in the training company once the dual route has been completed, and 29% go on to a higher level of studies (Statistique suisse).

The Swiss VET law of 2002 also considers a series of minimum standards for the teaching staff (practical and theoretical) and guides, set by the Confederation, which the Canton must provide through a specific training offer. The participation of the companies in dual VET programmes is 30% (Hoffman N., 2015) and the Confederation provides 25% of the cost of the training programmes.

Administration of Dual VET:

As specified in the web of the SERFI (Secrétariat d'Etat à la Formation, à la Recherche et à l'Innovation): "One

task, three partners" refers to the management, promotion and innovation of Swiss VET. The three partners in this task are:

- **Confederation:** The Confederation, along with the organisations from the world of work and diverse state agencies devoted to VET development, such as the SERFI Agency, defines the model curriculums of specific qualifications and the Federal Institute University of Vocational Education Training (IFVET) is concerned with the capacitation and lifelong training of those responsible for vocational teaching as well as undertaking research, studies and pilot projects of innovation in VET.

- **Organisations from the world of work:** This category is headed by professional associations / sectorial organisations, companies and other social interlocutors and they have different competences:

- **Professional associations:** the Swiss economy is structured from 600 professional associations that pass on to the competent authorities in educational questions of the Confederation the professional competences and sectorial needs to cover the VET system.
- **Companies:** they make available the apprenticeship places in the system.
- **Other social interlocutors:** they participate jointly with the professional associations on the continuous improvement of VET.

- **Cantons:** besides possessing the competence in education, which means extensively developing the

framework curriculums that are produced from the Confederation, in each canton there is a cantonal office of Vocational Education Training (normally with the name of Service de la formation professionnelle) that stimulates the creation of apprenticeship places and facilitates the student-company contact. The cantons form a federate so they can legislate questions in common, in the Confederation of Cantonal Directors of Education.

5.3 Main characteristics of the case

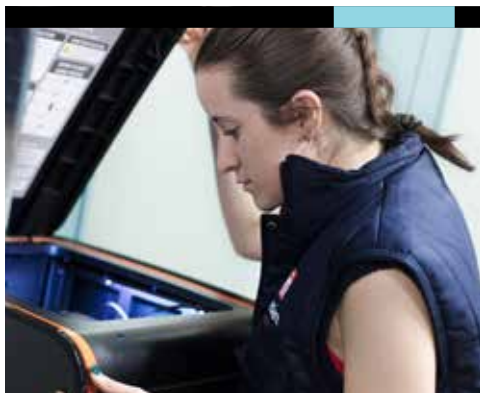
- The Swiss case has many similarities to the German one, not only in terms of the management of Dual VET and its importance, but also specific similarities in the design of the educational model and also in the comparatively early separation of pupils according to their level of competences.

- One feature of this system is the powerful task of research, innovation and information available from the system with the creation of Agències publiques for this purpose. These research centres in VET are not common in many countries and the most powerful are those of Germany (BiBB), Australia (NCEVER) and the Swiss SERFI. These centres place VET research at the same level and relates it to the other levels of instruction.

- Another aspect to highlight is the powerful decentralisation of the competence in education of the Swiss system, something that boosts its adaptability to the regional requirements.

Summary table of dual VET in Switzerland

	Swiss Dual VET
Weight in volume of Dual VET students	85%
Consideration of hours spent in the company	Within the training programme
Who determines the training content in company	cantons, chambers of commerce and training centres
Salary	Variable according to year of course, sector and canton. Normally ranges from €540 monthly in first year to €1,200 in the fourth year.
Time spent in the company	2-4 year stay alternating with centre
Period in company	Alternating in the same week, 3-4 days in the company.
Accreditation	Training company by the chambers of commerce
Training level achieved	Secondary or tertiary



Bibliography

- CONSTITUCIÓ SUÏSSA (1999) <https://www.admin.ch/opc/en/classified-compilation/19995395/index.html>
- FEDERAL DEPARTMENT OF ECONOMIE AFFAIRS, EDUCATION AND RESEARCH EAER (2013) ACVET Workshop – Best practice in VET; Switzerland.
- HOFFMAN N., SCHWARTZ R. (2015). "Gold Standard: The Swiss Vocational Education and Training System" (Washington, DC: National Center on Education and the Economy)
- LLEI FEDERAL SUÏSSA D'VET (2012) <https://www.admin.ch/opc/en/classified-compilation/20001860/index.html>
- TRAINING SYSTEM" (Washington, DC: National Center on Education and the Economy, 2015).

Webs visited

- Portal Swiss info <http://www.swissinfo.ch/spa/cantones-y-municipios/30013150>
- Secrétariat d'Etat à la formation, à la recherche et à l'innovation SEFRI <https://www.sbf.admin.ch>
- Portal Confederació Suïssa. Llei d'VET de la confederació. <https://www.admin.ch/opc/en/classified-compilation/20001860/index.html>
- Ministerio de Educación Cultura y Deporte <http://www.mecd.gob.es/suiza/ser-estudiante/en-suiza.html>
- Portal Orientació de Suïssa: <https://www.orientation.ch>
- tatistique suisse <http://www.bfs.admin.ch/bfs/portal/fr/index/themen/15/17/blank/01.indicator.4012074031.html>
- Secrétariat d'Etat à la formation, à la recherche et à l'innovation <https://www.sbf.admin.ch/sbf/fr/home.html>



6. The Australian VET system:

Australia is a federally organised country where the educational policy is transferred to the different states (6) where each state can undertake its own initiatives in organisation and planning of the educational offer. The framework of relationship between federal states and the Australian State is called the Australian Qualifications Framework. This framework of relationship is an agreement to provide packages of qualifications to all the states with guarantees and standards of quality in public and private operators throughout the Australian territory. The federal organisation and the extensive competences transferred in education result in each state having its own regulations in education, making it difficult to produce generalisations about the country's educational system. Nevertheless, one aspect in common of note is the mandatory nature of education until the age of 15.

On finishing secondary school a student can go to the TAFE schools (VET centres) or the university. Industry and the Administration work together to develop packages of competences and in the training the capacitation in workplaces has much importance. Another outstanding feature of the Australian VET system is that it capacitates the student to accede to higher university-type studies with total guarantees of adaptation and success.

Breve recopilación de indicadores

Contextual data	Australia
Population	25.1 million inhabitants(2018)
Total GDP	1.323 billion USD (2017)
GDP per capita	53,799.94 USD (2017)
HDI position	3rd (2018)
Educational context	
% population aged 25-64 with at least higher secondary completed	75.9% (2015)
% population aged 25-64 with tertiary education completed	41.9% (2015)
% of GDP spent on education	14.8% (2015)
Expenditure education per capita	20,344 USD (2015)
Weighting (%) of the NEET	6.5

Source: own production from data of the OECD and portal datosmacro.com

6.1 Legislative framework and administrative organisation

Before the 1980s only one third of Australians completed the secondary education stage successfully. In terms of the labour market this did not represent a problem, since industry absorbed, under the figure of the apprentice, all those young people who left the school system without qualifications. This context changed dramatically during the 1980s since the youth labour markets, like the rest of the western world, decreased drastically and the demand for apprentices fell. This new re-

ality caused the rates of secondary school success to rise up to 80%. This new situation also caused an increase in the diversity of the post-mandatory training offer which was later reorganised, in the early 1990s. It is worth pointing out that a new recession, in the early 1990s, caused an uncovered demand of professionalised studies, something that finally led politicians and public policy planners to rethink the secondary role that had been given to Vocational Education Training until then, which was identified as a key factor to counteract situations of recession (Posel J, 2000). Today el 46% of the population aged between 15 and 19

attend a course linked to VET (Schubert, R. 2018), a very high volume in absolute and comparative terms.

The policy planning of VET in Australia is the responsibility of the Ministerial Council for VET (MCVETE), and the main platform for implementing these policies is the council of Australian governments, made up of the Prime Minister, the prime ministers of the 6 federated states, diverse federal and state ministers as well as actors related to diverse aspects of VET such as the National Quality Council, the national industrial councils, or the National Audit and Registration Agency (NARA). This series of actors as a whole ensure that VET depends on high political spheres and the Prime Minister of Australia. The participation, in the planning and policy to follow for the system, of the prime minister and state prime ministers, places VET in an outstanding position on the political agenda and is coherent with the role of VET both in terms of student numbers and presence in the labour market.

The Australian Qualifications Framework (AQF)

The Australian Qualifications Framework is the conceptual framework of the post-mandatory education system in force throughout Australia. Its main characteristic is the quantity of pathways between instructive levels of higher education in which some specific ones are suited to a type of institution:

- The secondary schools, unlike the TAFE and which offer mainly Certificates of Secondary Education, can offer Vocational Education Training for the Certificate levels I-IV.
- Adult students (over 21) can study in the TAFE centres for the Certificate of Secondary Education.
- Both the universities and the TAFE centres can offer higher levels of professionalising education (Diploma and Advanced Diploma).
- The universities can issue qualifications of Certificate I-IV (professionalising levels). The TAFE centres in the university can offer different types of university qualifications.

All these pathways are regulated and specified in the AQF Qualifications Pathways Policy. This "educational collaboration", which represents a multitude of opportunities in teaching centres and institutions, creates more and better opportunities for students, dilutes the socio-economic differences in access to

higher studies, brings higher education to students who live in remote regions and, to sum up, also dilutes the frontiers between Vocational Education Training and Tertiary Education (Moodie, 2009).

The TAFE Colleges

The TAFE Colleges (Technical And Further Education) were founded in the 1970s as the main reference of modern VET, run by the Australian government and are the centres where higher technical education is given. These centres represent the largest educational sector in the country since there are more students in this type of centre than in the universities. Some reasons to explain this are that the courses given in the TAFE are shorter than university qualifications, of a practical orientation, linked closely with the productive system and that part of the courses are taken in the workplaces where the student will accumulate professional experience. A second characteristic is that that several options are offered on entering the Vocational Education Training system as well as connections it has with the university system. Below we define which levels and courses comprise these centres, and what the Certificates I to IV, Diploma, and Advanced Diploma are.

- **Certificate I:** length: 4 to 6 months. Qualification: competent operator. This certificate prepares the student to undertake routine activities as well as mechanisms of insertion into the labour market.
- **Certificate II:** length: 6 to 8 months. Qualification: advanced operator. Provides skills for developing functions in diverse contexts giving part of the responsibility to the pupil in part of the process.
- **Certificate III:** length: 12 months. Qualification: qualified technician or of trade. The knowledge provided to the pupil acquires depth, complexity and amplitude in the competences acquired in terms of selection, adaptation and knowledge transfer. Incorporation of competences of leadership (coordination of personnel or groups) and of resolving problems.
- **Certificate IV:** length: 12 to 18 months. Qualification: Supervisor. The course follows with in-depth contents and increases in the level of complexity of the knowledge obtained directed at developing different tasks in diverse contexts. It includes mechanisms of assessment, analysis of common practices as well as producing new criteria of undertaking tasks (continuous improvement).

- **Diploma:** length: 18 to 24 months. Qualification: Professional. In-depth study of a wide range of technical requirements. Knowledge of managing, assessment and coordination. The diploma holders are total autonomous workers capable of applying criteria of production and planning on their own. Some diplomas can be taken at the university.
- **Advanced Diploma:** length: 2 to 3 years, Qualification: Junior Manager. Qualification to undertake tasks of analysis, diagnosis, design, planning, execution and development of new criteria of production and procedures. Some advanced diplomas are taken in the university.

It should be noted that the contents of each level not only go deeply into the technical questions and those of innovation, but also, as the levels advance, gives the student managerial skills, for leading groups and leadership, transversal skills that not all VET systems include in their curriculum. The Australian VET system offers different speeds and rhythms to its students. The total route of VET studies in Australia, however, lasts for 6 years, even though each course completed offers a qualification. This characteristic enables, for example, 88% of VET students to study part-time and results in diverse age ranges between the students (OECD, 2008). Another characteristic of the Australian Vocational Education Training system is the cost, since this ranges from AUD\$5,500- AUD\$18,000 annually, the approximate equivalent to €4,000 to €13,000 annually despite the public ownership of the centres. The training contents of the TAFE is structured into 12 professional groups that bring together approximately (depending on the specific Federal State) 1,900 courses, the groups with most courses being Engineering (500 qualifications) and Health and Social Services (300 qualifications). This diversity of qualifications contributes to 80% of jobs in Australia being possibly covered by VET graduates (OECD 2008).



As in other countries, the companies that want to subscribe as Dual VET suppliers must be on a register in which they must comply with strict rules of quality and register their training plan to be validated, this being the only way a company or institution can become a training company.

The Registered Training Organisation centres

The RTO centres are the private operators of Vocational Education Training in Australia, are operative across the country and are obliged to comply with the same standards of quality as the TAFE centres. These centres are able to consider new qualifications in specialised areas that the public offer does not anticipate and can declare this new qualification as their property, becoming valid throughout Australia. These centres are subject to internal and external audits to ensure at all times that they follow the same standards of quality as in the publicly owned centres.

The triple helix in the planning system of the Australian Vocational Education Training system

The planning model of VET contents in Australia follows the triple helix model in that the State, industry and the universities intervene.

▪ The national industrial councils (Industry Skills Council):

they are 11 groupings of sectorial businesspersons. These are the actors that jointly with the competent administrations modify what are called "Training Packages", which are the series of national regulations and standards that comprise the qualifications and their criteria of recognition.

▪ The federated states

identify specific economic sectors

in which there is a deficit in competences required in order to provide them with the most appropriate human capital. The federated states can also generate new qualifications not considered in the national framework of action (National Qualification Framework).

▪ **Higher Education Centres:** they establish the objectives of the more advanced VET qualifications (Diploma and Advanced Diploma) in collaboration with committees made up of business representatives, workers, regional representatives and academic personnel.

▪ **Innovation, research and quality:** the Australian VET system possesses several agencies that have the aim of safeguarding the quality of VET across the country. This is the case, for example, of the "Nation-

al Vet Regulation" governmental agency, in charge of safeguarding quality at a national level, "The Australian Quality Training Framework" (AQTF), in charge of setting and monitoring the indicators of quality that the VET centres give and the "National Audit of Registration Agency (NARA)" in charge of auditing the VET centres across Australia and ensuring they follow the indications of the AQTF.

Apart from these external audits the centres undertake internal ones, and the federal states, for their part, also consider audits of the centres in their region. In terms of innovation and research diverse resources are also identified such as the task undertaken by the National Centre for Vocational Education Research (NCVER), made up of researchers, linked to the academic sphere, financed by the State (grants, research projects...). These centres are cutting edge in terms of VET, recognised across the world, and are a benchmark for the Australian government in terms of quality, innovation and continuous improvement of the VET system. The NCVER bases its analysis on the compilation of statistical data, elaboration of surveys, diverse analyses, international comparatives and diverse research results in the short, medium and long term, all focused on ensuring the planning is based on empiricism and on the detection of tendencies and facts. This Australian research centre is very similar to the German Bundesinstitut für Berufsbildung (BiBB), the benchmark innovation centre in VET in Germany. Another benchmark resource in research in terms of VET that the Australian VET system has is the VOCED database, run by the NCVER, and which has on-line 27,000 documents and articles of international research in questions of VET.

6.2 Australian dual VET:

The Australian VET system is eminently dual. This type of training mode brings together a total of 500 occupations. The Australian VET system is heavily institutionalised in society with a broad participation of agents and institutions involved in the management and execution of the programmes. In 2016 a total of 282,900 learners trained in the Australian Dual VET system in a country of just over 25 million inhabitants, a figure that has been growing for some years now (Jones. K, 2017), but which preserves its strategic and specific weight within the Australian educational system.

The Australian Dual VET programmes are undertaken through a specific contract between the apprentice and the company, accessible from the age of 15 without an upper age limit. The company must pass through several quality filters to be approved, such as the approval of the Australian Apprentice Centre, (AACs) a state entity that watches over the dual VET in the country, or the approval of the "State or Territory Training Authority (STAs)", regional entities that manage and monitor the quality of the Dual VET in their regions. Both entities also have the role of promoting the Dual VET offer, of being a bridge between companies and apprentices and facilitating the processing of contracts and pertinent procedures.

As in other countries, the companies that want to subscribe as Dual VET suppliers must be on a register in which they must comply with strict rules of quality and register their training plan to be validated, this being the only way a company or institution can become a training company.

The Australian Dual VET students spend 80% of the learning time in the workplace and the other 320% in the VET centre, which in practice translates into an average of 4 days per week in the company. It is worth pointing out that by law the apprentices must spend a minimum of 13 hours per week in the company. The dual training period ranges between 3 and 4 years.

Australian incentives system:

Perhaps this is one of the most outstanding elements of the Australian system, which uses a strong system of economic incentives to companies and also to apprentices. This system considers diverse levels of public funding that depend on diverse variables and objectives.

- **Standard Commencement:** when the companies receive an annual standard funding of between €815 and €1,015 per apprentice in training.
- **Standard Recommencement:** if the company takes on students again who have abandoned the system they receive an extra €510 annually.
- If the company accepts a **student who had abandoned the educational system** they may receive an additional €510 and €1,015.
- **Standard Completion** for each student who completes the training in the company it can receive an additional €1,700.



■ **Special Rural and Regional Skills Shortages Commencement**
the non-metropolitan companies that take on students receive an additional €680 annually.

■ **Mature Aged Workers Commencement and Completion**
incentive of €150 euros annually to take on apprentices aged over 45.

This is a list of the main incentives without affecting the other types of specific regional incentives or those of a special nature.

As regards the students, they receive a salary linked to their training contract per hour worked. The setting of this salary depends on diverse variables such as:

- The year of training they are in (1st, 2nd, 3rd or 4th)
- VET modality they are in
- Specific industry
- Specific region where the apprenticeship is located.

It should be noted that the average hourly wage of an apprentice is around 17\$ Australian (€11.50).

6.3 Main characteristics of the case:

■ The definitive modification of the Australian VET system took place in a context of economic recession, specifically that of the 1990s, in which the unqualified young population could not accede to the labour market through the apprenticeship system. The labour market produced a large number of unemployed while at the same time creating an unattended demand for professionalising studies. This context of ignoring a training need resulted in the Australian government putting the remodelling of the VET system high up on the list of the political agenda.

■ Australian Vocational Education Training does not only provide the student with technical contents linked to undertaking tasks but also provides other skills of a transversal type such as autonomy, encouraging the innovative spirit in terms of continuous improvement and improvement of productive processes as well as leadership and management skills, which increase in depth as the VET levels advance. This supply of transversal skills means boosting the productivity of the worker as well as giving added value to the graduate in VET, capable of organising themselves autonomously, organising other workers and improving the productive processes linked to their task or those of their team.

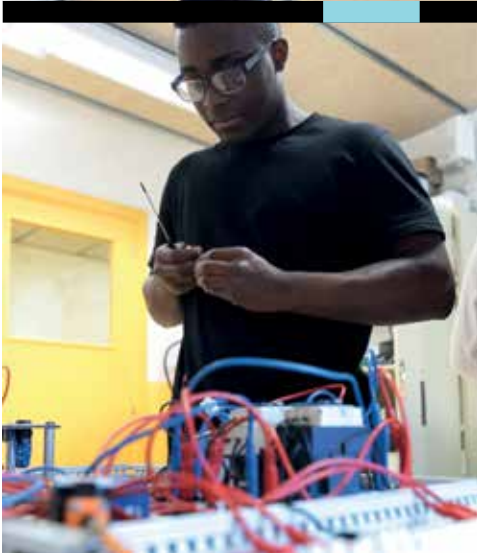
■ The post-mandatory Australian educational system is highly flexible due to diverse reasons:

- Flexibility on starting the different instructive levels corresponding to both the university and Vocational Education Training systems.

- Flexibility in classroom time of the courses according to the preference of the student. They can choose the length of the course they decide to enrol on.
- Flexible territorially, since in the different states that make up the Australian Federal State they can extend the offer set by the Australian Qualification Network.
- The Australian VET system has certain tools in order to guarantee that the system does not stagnate or deteriorate and that it will improve in order to provide a response to the challenges of industry and services. These tools are a powerful network of agencies that watch over the quality of the VET, a research centre of world renown in terms of VET and academic research teams focused on innovation and continuous improvement in VET.
- In summary, the Australian case confirms that the boosting and development of VET capable of responding to the challenges of industry and to deficits in skills occurs when the VET is placed at the top of the agenda of the government assuming the responsibility for its development. Another contributing factor to the development of VET is a) making its research for academic purposes attractive (researchers disposed/with incentives to develop the subject) and b) making an effort to reorder, modify and place VET in the front line as supplier of human capital.
- Also common to other leading countries in VET, such as Switzerland and Germany, is the presence of a specific research centre in VET capable of creating and maintaining research teams in quality and innovation of the offer and the VET system in the region (Lloret and Tarriño 2011). This facilitates the concentration and production of information, empiricism and knowledge applicable to different fields of VET.
- However, we cannot forget that the Australian system has quite a high cost for user, above all if compared with the cost of VET in Catalonia. It should be noted that Australia occupies second place in the Human Development Index (HDI), which means that its citizens have all their basic needs covered and enjoy quality services and social wellbeing.
- The Australian Dual VET system is one of the most developed institutionally and includes a detailed level of incentives for companies to take on apprentices, recover students who have dropped out and to finalise training programmes by the students.

Summary table of dual VET in Australia

	Australian Dual VET
Weight in volume of Dual VET students	43.5%
Consideration of hours spent in the company	Recognised
Who determines the training content in company	Series of public (ministries) and private (representatives productive fabric) actors and centres
Salary	Between €7 and €10.50 per hour average. However, it depends on 4 factors: the year of training in which the apprentice is (1st, 2nd, 3rd or 4th), VET modality studied (full or part-time), specific branch and region of location.
Time spent in the company	80% of the training
Period in company	To be determined via the apprentice contract
Accreditation	Accredited company.
Training level achieved	Secondary or tertiary, depending on qualification



Bibliography

- JONES, K. (2017): The decimation of Australia's apprenticeship System. Australian Education Union
- LORET, T, TARRIÑO, A (2011). "Buenas practicas internacionales en Innovación en VET en Cuadernos de Pedagogía, N°410
- NCVER (2000) Australian vocational education and training: An overview. Adelaide: NCVER <http://studyinaustralia.gov.au>.
- NOONAN, P., PILCHER, S. (2017) There is no apprenticeships 'crisis' in Australia. The conversation. 31 agosto de 2017.
- MISKO, J. (2006) Vocational education and training in Australia, the United
- MOODIE, G (2009). Higher education in Tafe: policy, perspectives and prospects. 18th national vocational education and training research conference, 9 Julio. University of Ballarat, Mt Helen.
- OCDE (2008). Learning for Jobs. OCDE Reviews of Vocational Education and Training. Austràlia. <http://www.oecd.org/dataoecd/27/11/41631383.pdf>
- POSEL, J. (2000) "La formación profesional en la escuela; una iniciativa australiana: hacia la integración de estudios profesionales y académicos en el currículo de la secundaria superior" en Revista europea de la formación profesional, Vol III n°21.
- SCHUBERT, R., GOEDEGEBUURE, L. (2018): The vocational education sector needs a plan and action, not more talk. The conversation. 2 octubre de 2018.

Webs consulted

- Australian Qualification Framework. <http://www.aqf.edu.au/>.
- VET information Shared <http://www.ivet.com.au/a/12.html>
- Govern Austalià: <https://www.australia.gov.au/information-and-services/education-and-training/vocational-education-and-training>
- Australian Apprenticeships Pathways www.aapathways.com.au





7. The Spanish VET system

Spain has a territorial distribution that is self-named the State of the Autonomies. This regional system has regional administrative traits similar to a federal state in some cases, even though with less autonomy than in the typical cases of federations such as Germany or Switzerland. The deployment of the Spanish autonomic regions (17) is asymmetric, some regions having more autonomy than others.

The mandatory school age is between 3 and 16. On completing this mandatory stage the pupil must decide which educational route to follow (VET or Batxillerat [pre-university]) or they can enter the labour market.

Brief summary of indicators

Contextual data	Spain
Population	4.7 million (2018)
Total GDP	1.311 billion USD (2017)
GDP per capita	28,156.82 USD (2017)
HDI position	26 (2018)
Educational context	
% population aged 25–64 with at least higher secondary completed	65.6% (2015)
% population aged 25–64 with tertiary education completed	41% (2015)
% of GDP spent on education	9.77 (2016)
Expenditure education per capita	12,605 USD€ (2015)
Weighting (%) of the NEET	8.6

Source: own production from data of the OECD and portal datosmacro.com

7.1 Legislative framework and administrative organisation

Educational policies have a common framework delimited by state laws (the current law in force is the LOMCE of 2013 that replaced the LOE of 2006) and the State assumes the most relevant functions at a legislative level, leaving the Autonomous Communities the role of deploying in their territories the state laws, their execution and the administration of the educational system of the corresponding regions. It should be said that the LOMCE is a legislation that is currently still in development and may be amended as academic years pass.

On specific terms of VET, today it is dealt with in the constitutional law 5/2002 of Qualifications and Vocational Education Training, the regulation that orders an entire system of Vocational Education Training, qualifications and accreditations of the VET system.

It should be noted that despite this state regulation, as has been mentioned, the Autonomous Communities can develop autonomous legislative figures in the field of

education and training that may range from a resolution, decree or law, dependent on each AC. These must respect the common state legislation and must serve to deploy this shared framework in its territory.

Secondary education

In the Spanish case, once the student ends the mandatory stage of secondary education (ESO, 12–16) they must choose from two routes:

▪ **Batxillerat (pre-university):** which goes from 17–19 and is made up of three modalities with differentiated material and subjects: Sciences, Humanities and Social Sciences and Arts. According to the modality chosen, once the student has obtained the qualification, they can choose a specific field of higher qualifications. The higher qualifications that the batxillerat give access to are university degrees and higher level Vocational Education Training.

▪ **Higher Level Vocational Education Training:** its length varies between 1,400 and 2,000 hours depending

on the specific qualification, structured around training modules, which can mean between 1 and 2 years of studying depending on the specific option chosen from among the 26 professional groups that the Ministry of Education considers or also the specific options of Plastic Arts and Sports. Access to these studies is through passing the ESO qualification, obtaining the Basic VET qualification (described in the following point), and access test of specific course to the VET (CFGIM) qualification. The completion of this type of study offers the category of intermediate technician. The intermediate technician can accede directly to higher VET studies.

Spanish VET system

The Spanish VET system is structured around 3 types of official training of diverse levels which are detailed below:

- **Basic Vocational Education Training:** this type of VET is for students aged 15 to 17 who have not completed the ESO but who want to continue studying. This type of training lasts 2 years and in the case of passing leads to the VET routes and in certain conditions may lead to the awarding of the ESO qualification. The structure of this training is based on professional groups and once passed the qualification of Basic Professional Technician is obtained.
- **Intermediate Vocational Education Training:** considered as secondary level training. See above point.
- **Higher Vocational Education Training:** considered as higher level training according to the European classification, the higher degree is structured from training modules and professional groups as occurs in the case of Basic VET and VET. The length of this route is between 1,400 and 2,000 hours normally distributed in 2 academic years. As in the case of the VET it also includes options of artistic and sporting nature. The higher degree is acceded to after obtaining the Batxillerat qualification, from a specific access or training course or from having obtained a related VET certificate.

On the other hand the Spanish VET system has two sub-systems aimed at unemployed workers, which are:

- **Occupational training:** aimed mainly at unemployed people irrespective of their age. The aim of this training is to requalify unemployed people in order to improve insertion. The length of this training is variable and to enter they must be registered unemployed in the state or autonomous community employment offices.

- **Lifelong training:** aimed at people already working. This type of training is normally undertaken in companies in order to requalify and update the knowledge and skills of their workers.

Programming of VET contents

In terms of producing the curricular contents of ESO and Batxillerat the AC can complement contents of the "core" subjects designated by the Ministry of Education (Physics, Chemistry, Mathematics, Spanish language and literature...) and provide contents in the "specific" subjects (religion, physical education...) and "free autonomous configuration" which are normally the language and literature of the region itself.

In terms of VET the Ministry of Education has the function of "the promotion of Vocational Education Training and basic educational organisation of the corresponding teaching" (web of the Ministry of Education) through the National System of Qualifications and Vocational Education Training.

The programming of the VET contents in Spain is directed from the central authorities by means of the General Council of Vocational Education Training. This is a consultative body of the central government, created in 1986 and reformed in 1997, which incorporates members of the government and its structure, different autonomous members, business and trade union representatives. This body undertakes its functions mainly in a plenary form with 77 members although it also works from permanent commissions or work commissions (for example, to develop the specific class contents of a specific professional group). This is the body in charge of drawing up the National Catalogue of Professional Qualifications (CNCP).

The specific contents of VET in Spain are structured around the National System of Qualifications and Vocational Education Training (SNCVET), created in 2002, the main purpose of which is the capacitation of workers to work professionally with quality and promote a quality training system. The SNCVET is based on the National Catalogue of Professional Qualifications (CNCP) which is the instrument that organises the professional qualifications identified in the productive system as susceptible to recognition and accreditation. The CNCP comprises the most significant professional qualifications of the productive system organised by professional groups and levels, so it is the basis for drawing up the training offer of professional qualifications and certificates.

The deployment of curriculums and contents is decentralised, so that the enacting of this catalogue corresponds to the AC from the corresponding autonomous legislation

7.2 Dual VET in Spain

Dual Training in the Spanish state is still a minority VET modality and exists alongside the "traditional" VET modality that develop stages in the company through the Workplace Training module (FCT). In 2016-17 there were a total of 20,356 students throughout Spain doing the dual modality in 795 centres providing this training modality, which represents 2.57% of the total VET student body⁴. It should be pointed out that the regulation of Dual VET in Spain is still in its initial state. There is currently no ad-hoc law at a state level and this training modality has as its main reference the RD 1529/2012 through which a contractual modality is developed that can be used, for example, among other cases, to link dual apprentices in the company (training and apprenticeship contract).

Some regional models also contemplate the option of grant the student (as opposed to hiring him), with Social Security registry and remuneration assigned. The grant implies much more variable conditions such as a shorter length of stay in a company and/or less remuneration. A third way to link apprentice and company is an agreement between training center and company, in which it is not mandatory to pay or register the apprentice in Social Security. The student has a minimum percentage of company training of 33% and this percentage can be expanded in some CC. AA cases.

The deployment of Dual VET around the region depends on each CA, when carried out in this initial stage and not very regulated in general terms, results in diverse and changeable scenarios in each region. In any case there are critical unregulated and unforeseen elements, such as the role of the assessor of the system, the involvement of the business and social organisations and chambers of commerce in producing the contents, standardisation of assessment of the competences of the apprentices throughout the region, the accreditation of the training companies, the minimum requisites of the tutors of companies or their training or the establishment of direct dialogue between the different actors involved in Dual VET.

7.3 Main characteristics of the case

The Spanish case is characterised by a major role of the State in the definition of the framework of the system, relegating to social and regional agents a consultative role. This characteristic is more like a French model or state-regulated, although in contrast, the deployment of this regulation is undertaken by the CA, something that gives the regions a certain freedom in defining some features of the system. In any case, it seems there is no flowing relationship between regions, social agents and the State, identified in other models dealt with in this study, in order to establish mechanisms of updating contents and a narrow margin of the regions to influence the model framework of the system.



⁴ Own production from data of the Ministry of Education, data course 2016-17. Total VET student numbers: 791,385. Students in dual modality: 20,356.

In terms of Dual VET, Spain, compared to the European countries, is in very initial stages, in both the weight of the dual modality and in its legislative development. On the other hand, the relative lack of legislation in terms of Dual VET is not a tool that boosts or favours a solid dual VET, since even though considering an apprentice contract (with much worse conditions than the benchmark countries) opens the door so that companies incorporate apprentices with grants, something that greatly limits the length of time in the company and which may cause an affront to the apprentices contracted with regards to rights and conditions.

As has been specified earlier, there are still many unregulated and unforeseen aspects considered critical. There are no mechanisms of assessment of the training received in the company, the role of the social agents is much less in Spain, as is their capacity of intervention, and in consequence, their involvement. They do not stipulate minimum conditions by which a company may develop Dual VET programmes and no powerful system of incentives is identified for companies that contribute to the productive sector tending towards this training option.

Summary table of dual VET in Spain

	Spanish Dual VET
Weight in volume of Dual VET students	2.57% (2016-17)
Consideration of hours spent in the company	Recognised
Who determines the training content in company	Centre and company under a CV framework
Salary	The training and apprenticeship contract sets the IMS as a salary, there is also the possibility of a grant that in each AC may be different.
Time spent in the company	Minimum of 33% extendable.
Period in company	To determine through the agreement with the centre
Accreditation	No accreditation necessary of the company
Training level achieved	Secondary or tertiary, depending on the qualification of the linked VET

Bibliography

- CEDEFOP 2009: Spain. VET in Europe – Country report, CEDEFOP Thessalonika 2009.
- CORTS GENERALS (2002). Llei orgànica 5/2002, de 19 de juny, de les qualificacions i de la Formació professional.
- MINISTERIO DE EDUCACIÓN CULTURA Y DEPORTE (2002). Sistema Nacional de Cualificaciones y Formación Profesional. Madrid. http://www.educacion.gob.es/educa/incual/pdf/2/Web_Folleto_castellano.pdf
- MINISTERIO DE EDUCACIÓN CULTURA Y DEPORTE (2015). La VET en España. Secretaría de Estado de Educación, Formación Profesional y Universidades. Madrid. <http://www.mecd.gob.es/prensa-mecd/dms/mecd/prensa-mecd/actualidad/2015/04/20150409-ocde/ocde1.pdf>
- MINISTERIO DE EMPLEO Y SEGURIDAD SOCIAL (2016) La formación profesional dual: Contrato para la formación y el aprendizaje. Madrid. https://www.sepe.es/contenidos/que_es_el_sepe/publicaciones/pdf/pdf_empleo/VETd_contrato_fya.pdf

Webs visited

- Eurydice España <http://www.mecd.gob.es/educacion-mecd/mc/redie-eurydice/sistemas-educativos/organizacion-y-administracion.html>
- Eurydice España https://webgate.ec.europa.eu/VETfs/mwikis/eurydice/index.php/Espa%C3%B1a:EL_aprendizaje_a_lo_largo_de_la_vida
- Fundació Bertelsmann <https://www.fundacionbertelsmann.org/es/home/>
- Portal Educaweb <http://www.educaweb.com/contenidos/educativos/formacion-profesional-VET/formacion-profesional-basica/>
- Ministeri de foment <http://www.fomento.gob.es/>
- Ministeri d'Educació <http://www.educacionyvet.gob.es/portada.html>

8. Conclusions

Looking at the diverse cases covered in this study, which includes a selection of the most significant VET systems in Europe plus the benchmark case of Australia and Spain, we have dealt with the systemic level of VET, the secondary education system as well as specifically the different Dual VET systems in each of these countries. Below we provide a reflection reached from the comparative result and of the critical aspects identified.

Regarding the system:

▪ **Direct participation of the social agents:** it seems clear that in the successful cases, understood as a strong and efficient VET system, there is a direct involvement of the social and regional agents. In this sense, it is mainly the responsibility of these actors to form the VET legislation, execution, validation and assessment of the different systems and subsystems of each country. This role is not limited to being consultative, but identifies a direct involvement in favour of co-responsibility in education and in favour of the necessary adaptation and reformulation of contents that training like VET requires to become a modern training resource, of quality and capable of placing its graduates into the labour market. The State alone is unable to reach all the sectors and regions from the vertical point of view without leaving aside the requirements and characteristics of each sector and region and the different combinations of specific sectors and regions, but needs in this task the complicity and direct involvement of an intermediate fabric composed of social agents (trade unions, business organisations, chambers of commerce, foundations and autonomous and local agencies) in order to place VET on the correct path more in line with the successful models.

▪ **The role of research and I+D in VET:** in the leading countries regarding VET we identify state agencies that boost research and I+D in the VET domain, this task seems essential in order to synchronise diverse elements such as the prospection of needs of the labour market, updating of class contents as well as compiling and documenting successful cases and good practices of educational and pedagogic innovation as well as a powerful system of indicators that have the aim of assessing and monitoring the system: this is the case of the German BiBB, the Australian NCVER or the Swiss SERFI.

▪ **Specialised specific centres:** another outstanding characteristic is the existence of specialised centres where the innovation is developed. This is the case of the Australian TAFE, the French Lycées des métiers, or the 19 Dutch Kennijcentrum Beroepsnederwijs Bedrijfsleuen centres. Where diverse actors involved in the specific training sphere coexist, clustering processes result and pedagogic educational innovation is developed in processes of specialisation.

Regarding the Dual VET modality:

▪ **Labour conditions of the Dual VET apprentices:**

it seems that a critical factor is that of developing a setting fitting for the apprentice through a specific contractual model for students of the dual modality. This contract, seen in diverse cases, can consider incentives for the permanence of the students, as in the case of France, social security registration, a temporary period coherent with apprentice processes of quality and a salary for the apprentice being trained through productive labour activity for the company.

▪ **Incentives for companies:** another outstanding critical factor are the different incentive systems for companies to take on apprentices in the dual training modality, such as the Australian progressive system of incentives, the Danish Kennijcentrum Beroepsnederwijs Bedrijfsleuen funds or the €2,500 that Holland gives the companies for each dual VET place created in the company. It should be understood that in this type of training the companies that generate dual training places are a critical element given that the centres must find training centres (companies) to collaborate with and must encourage an actor from industry



to want to become an actor in the educational sphere as well, above all in a stage of establishing the system. In a case like the Spanish one, in which it appears there is lack of knowledge and certain reticence to incorporate dual VET apprentices, the incentives are minimum, such as a social security bonus of the apprentice and tutor.

■ **Role of Chambers of Commerce or similar and self-regulation of the system:** the different successful Dual VET cases actively include the chambers of commerce or equivalent actors. The chambers undertake, by law, within the Dual VET system, essential functions such as the accreditation of companies who can take on apprentices, drawing up and correction of exams that standardise the knowledge of the apprentices, issuing

of qualifications, concretion of contractual conditions of the apprentices, ensuring the quality of the training, supervision of the training in workplaces and training of company tutors among other functions. This series of functions does not have a clear actor of reference in Spain and in many cases these essential functions for a dual VET system are not undertaken. The role of the chambers or their equivalents is in these cases that of "self-regulation", supervision, accreditation and assessment of the training that the companies that make up the chamber offer.





PART TWO: CASES OF VET MANAGEMENT IN CITIES

Cases tackled: Dublin, Brussels, Local committees of Danish training, Finnish municipalities, School boards of Quebec.



9. Quebec: local leading role and school boards.

Canada is a federal state made up of and divided territorially into 10 provinces (regional level) with quite a lot of autonomy, especially with regards education and training. The province of Quebec, on the east coast of Canada, and which forms the frontier with the USA in the south, is in a process of boosting vocational teaching and the dual routes. This province leaves a very large space for the management and planning of education at a local level if we compare it with European cases. The role of the local administrations and corporations is important in terms of coordination and educational planning through what are called "School boards", local bodies of a participative nature, which manage the educational services and all the levels except the university. The school boards also offer diverse services to companies of training and specialisation of their workers in most of the sectors of activity in the province.

9.1 The school boards

These boards are made up of people chosen by universal suffrage (normally in each district of the city), have a local reach and can bring together more than one municipality. They have the competence of organising and managing pre-school, primary and secondary school as well as Vocational Education Training for both young people and adults.

representative they wish by universal suffrage. The member arising from each district has the task of finding out and being informed of the educational needs of their district as well as representing their neighbourhood community on the school board itself. The members of the district choose a president of the board. The school boards from the province of Quebec are also organised within the Federation of school boards of Quebec.

Data of the school boards⁵

- In Quebec there are a total of 72 school boards
- They are responsible for the education of more than one million students and adults from all Quebec
- They provide employment for more than 173,000 people
- They administer 11 billion Canadian dollars (€7,230 million) annually
- They manage 2,340 state schools, 193 adult education centres and 195 Vocational Education Training centres.
- They manage a VET offer of 146 qualifications divided into 21 professional groups
- They manage the lifelong training offer in their cities
- They approve agreements and take proposals for dual routes to the Ministry (regional)

Organisation of the school boards

The school boards are made up of elected members for which the citizens of each district can vote for a

Role of the school boards in the VET system

In terms of VET, apart from selecting and contracting the teaching staff and being responsible for the management and provision of the centres, the school boards play a key role in the renewal and expansion of the training offer in their regions, since one of their functions is that of considering new training and introducing changes in the training curriculums. The school boards promote and take these changes to the Ministry of Education of Quebec, which must authorise the modifications and extensions⁶.

The task of renewal and expansion of the training offer of the school boards is developed jointly with industry represented in thirty sectorial committees which define the sectorial needs of the workforce⁷.

The sectorial committees take in as a whole the participation of more than 400 organisations from the labour market, bringing together representatives of workers, employers, sectorial associations and trade guilds⁸.

The role of the school boards (local government) in the development of Dual VET has more relevance and assumes more functions than many European models. For example, the school boards are the bodies in

⁵ La Fédération des commissions scolaires du Québec / ⁶ Gouvernement du Québec Ministère de l'Éducation (2001) / ⁷ Gouvernement du Québec ministère de l'éducation, du loisir et du sport (2010) / ⁸ More information and list of sectorial committees at <https://www.cpmt.gouv.qc.ca/reseau-des-partenaires/comites-sectoriels.asp>

charge of endorsing dual VET programmes in their region and taking them to the Ministry of Education (regional level) for their approval. The school boards are also responsible for starting up innovation processes in Dual VET.

The implantation or conversion of a cycle in dual modality in Quebec normally involves retouches within the framework curriculum of the qualification that the school boards lead and carry out in collaboration with the sectorial committees.

9.2 Dual VET in Quebec

Dual VET is given the name "Alternance travail-études" with the acronym of ATE. It can be seen that it was in the mid-90s when the first dual routes were started, promoted from the provincial government, and from this moment was given a budget in order to promote this training modality⁹. Today there are over 11,000 dual VET students, which represents a total of 8% of all VET students in Quebec¹⁰.

Within the Quebec VET system there are two different types, based on the level of one and another within the school system, and in each one the curricular content of the stages of the apprentices in the company is determined differently. The two modalities are VET (VET) and Technical VET (TVET).

Regarding TVET, this has a higher level than VET within the Quebec school system. TVET is considered as "College" level which is a level between secondary school and university, while VET is considered as secondary education. VET includes several sub-modalities such as the AES, DEP or ASP programmes, which last between 1 and 2 years and greatly directed at the labour market, whereas TVET considers only the DEC modality, which lasts 3 years and may end in either the labour market or the university. VET may also end its route in the university (it is not 100% finalist) but another route would have to be followed to reach the university if this is the student's aim.

Definition of the curricular content

In the case of VET it is the centre that defines the content of the apprentice's stay in the company as well the time periods of the stages and the assessment methods, while in the case of TVET it is the company that defines these elements. In both cases consensus is sought with the partner in order to fit the contents but in any case the relationships in one or other case are asymmetrical and favour the logic of the centre or the company, depending who draws up the content initially.

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the school boards are the bodies in charge of endorsing dual VET programmes in their region and taking them to the Ministry of Education (regional level) for their approval. The school boards are also responsible for starting up innovation processes in Dual VET.

Stay in the companies in dual modality, two types Both Vocational Education Training modalities (VET and TVET) have a minimum stay in the company that is the equivalent of 20% of the total number of hours of the curricular content of the training, which ranges between 240 and 1,800 in total and depends to a large extent on the diverse types of programmes (AEC, DEP, ASP or DEC). However, in the case of VET these hours are undertaken within the classroom hours of the qualification while in the case of TVET they take place outside the classroom hours of the qualification. This factor is important regarding the payment of apprentices, since in the case of VET the work experience time is considered accredited and recognised content and payment is not obligatory. In this case the apprentices are assessed by teachers from the training centre and the company only assumes the role of supervisor of the training task given to the apprentice by the centre. On the other hand the training in the company of TVET is neither accredited nor recognised (it is done outside the classroom hours of the qualification and, therefore, longer stays), and is only assessed by the company. In this case it is obligatory to make a payment equivalent to the minimum salary in force which is currently 12CAN\$/hour, approximately €8 per hour, which is equivalent to a monthly salary for 35 hours per week of €1,120€¹¹.

If we take into account that the VET students represent a solid 75% of students in dual VET modality, it can be confirmed that the vast majority of dual VET students do not have a legal right to an obligatory payment for their stay in the company.

In the case of the VET stage modality, Hart (2106a) points out the greater resistances in the centres to establish

⁹Hart, S (2016a)

¹⁰Hart, S (2016c)

¹¹Web Alternance Travail-Etudes en formation professionnelle et technique (Government of Quebec)

dual programmes, since the hours of the stages in the companies is considered within the training hours of the programme, which means the teachers understand that teaching hours in the centre decrease in favour of the company, something they identify as prejudicial in terms of their workload. In the case of TVET the teachers are not reticent of this type because it does not affect their workload since the hours spent by the students in the company are additional to the times already included in the classroom programme.

The length of the apprentice periods in the company are also different depending whether the student is in the VET or TVET modality. In the case of VET the company stages are periods of between 4 and 6 weeks, while in the case of TVET the training periods in the company are of 6 to 16 weeks consecutively, once they have completed the training curriculum in the centre.

9.3 Outstanding elements of the case

- High level of local autonomy in terms of programming and management of the Dual VET and TVET offer. They assume functions that are normally considered of a regional scope.
- Important role of the citizenry in educational policies, since at a district level it chooses the members of the School Board. This means that the educational managers have a different approach to the region, highly orientated to the needs and preferences of the citizenry that elects them.
- Inclusion of industry in the programming of the dual VET and TVET offer from 30 Sectorial Committees.
- There are two Dual VET routes depending on the level of VET, which are taken in very different conditions (times of stage and salary), something that is different to the European benchmark models.

Summary table of dual VET in Quebec according to modality (VET or TVET)

	Dual VET modality	Dual TVET modality
Weight in volume of Dual VET students	75%	25%
Consideration of hours spent in the company	Within the training programme	Outside the training programme
Who determines the training content in company	Training centre	Company
Salary	Not obligatory	Minimum salary in force (€8/hour)
Time spent in the company	4-6 weeks	6-16 weeks
Period in company	1 day a week or 1 week during school course	All consecutive weeks on completion of course
Accreditation	Stage in company accredited	Stage in company not accredited
Training level achieved	Secondary	Collegial (between secondary and university)



Bibliography

- DIRECTION DE LA FORMATION PROFESSIONNELLE. GOUVERNEMENT DU QUÉBEC (2018) Guide administratif de l'alternance travail-études en formation professionnelle.
- FÉDÉRATION DES COMMISSIONS SCOLAIRES DU QUÉBEC (2014): "Le goût du public Mission et rôle de : l'élève scolaire, la commission scolaire et la fédération des commissions scolaires du Québec"
- FÉDÉRATION DES SYNDICATS DE L'ENSEIGNEMENT (2018) Les stages en formation professionnelle (traditionnels, en alternance travail-études et autres).
- GOUVERNEMENT DU QUÉBEC MINISTÈRE DE L'ÉDUCATION, DU LOISIR ET DU SPORT (2010) La formation professionnelle et technique au Québec.
- GOUVERNEMENT DU QUÉBEC MINISTÈRE DE L'ÉDUCATION (2001) Guide administratif programmes de formation préparant à l'exercice de métiers semi-spécialisés
- HART, S (2016a) Concevoir la nouvelle formation en alternance aux stages prolongés sur la base de l'expérience de l'actuelle ATE de la formation professionnelle et technique. Océ, UQAM, bulletin Vol 7, N°1.
- HART, S (2016b) Stages en entreprise en formation duale et alternée: quatre paramètres à considérer. OCE, UQAM,.
- HART, S (2016c) Alternance travail-études : ce que révèlent les données administratives du programme
- MINISTÈRE DE L'ÉDUCATION ET DE L'ENSEIGNEMENT SUPÉRIEUR (2018) L'alternance travail-études en formation technique
- ROSSEAU, A (2008) La formation professionnelle et technique au Québec. Ministère de l'éducation, du loisir et du sport

Webs consulted

- ALTERNANCE TRAVAIL-ÉTUDES EN FORMATION PROFESSIONNELLE ET TECHNIQUE <http://ate.inforouteVET.org/>
- COMMISSIONS DES PARTENAIRES DU MARCHÉ DU TRAVAIL <https://www.cpmt.gouv.qc.ca/reseau-des-partenaires/comites-sectoriels.asp>
- TREAO VET: Table des responsables de l'éducation des adultes et de la formation professionnelle des commissions scolaires du Québec. (<http://treaoVET.qc.ca>)



10. Finland: the Finnish municipalities

Finland has a population of 5.5 million people and is divided into 19 regions, 74 sub-regions and 342 municipalities. In the case of education, and more specifically VET, the administrations with most weight are the central government and the municipalities. 40% of a current generation begin studies linked to VET after completing basic education (Finnish National Agency for Education), and this indicator provides an idea of the magnitude that VET represents in Finland at a level of policies and the productive system, in an economy with one of the lowest unemployment rates in the European continent.

The VET suppliers

While the role of the Finnish central government (through its Ministry of Education and Culture and the dependent National Agency for Education) is to define and structure the common framework of qualifications, the structure of VET and the basic regulations, the role of the municipalities is that of organising Vocational Education Training in their regions, fit the training offer to the local labour market needs and design study plans based on the requisites of national qualifications set by the ministry. The supplying municipalities decide independently about the level and type of personnel and about the type and number of institutions or units they run (Finnish Ministry of Education and Culture). Regarding funding, both the central government and the municipality fund the VET system.

In total there are 165 VET providers in Finland (2016), of which the vast majority (approximately 80%) are municipalities, and there is no private or regulated offer (except for some religious minorities with their own centres, but very few) but there may be federations of municipalities, a state institution, foundations, specific associations or private initiatives. These suppliers manage different units (centres).

10.1 Anticipation of the qualifications of the future and needs of the labour market

Finland makes a major institutional effort in order to progress in future qualifications through the "National Forum for Skills Anticipation". This is a body dependent on the central government that groups together actors of different types from the same sector such as workers, companies, representatives of training centres, teachers, researchers and experts. This Forum is organised into 9 sectorial work groups:

1. Natural resources, food production and environment
2. Commerce and administration
3. Education, culture and communications
4. Transport and logistics
5. Hotel and catering
6. Sustainable construction
7. Social and health services
8. Technological industry
9. Industrial production

The mission of this forum, as its name indicates, is that of anticipating the qualifications that the productive system of the country will need and to propose initiatives and recommendations in order to implement them in the educational system.

At a local level they develop the "Education Boards" where the municipalities, local job offices, chambers of commerce, VET centres, companies and different local networks jointly assess the needs of the labour market (quantitative and qualitative) to which the centres must provide a response. This information is very relevant regarding the centres due to the new reform of funding of centres, since a total of 15% of the funds they receive is directly related to the capacity of insertion of students who graduate from the centres.

10.2 The funding reform: orientation towards results and competences

Finland is currently implementing a reform, passed in 2018, of Vocational Education Training that was classified by the central government as one of the main public policies of the country. The main aspects of this reform are:

- The creation of individualised routes for students
- Placing emphasis on the acquisition of competences and specialisation: reduction of vocational qualifications from 350 to 160 but increasing the routes to specialisation for each qualification and optional contents.
- Attract (and retain) more students to the VET system.
- Generate a new funding system by means of a reform that boosts the offer of vocational qualifications in each centre and the insertion of these students. This funding system is based on 50% of the funds in relation to the students of the centres, 35% in relation to the quantity of the vocational qualifications that a centre offers and 15% based on the insertion of their students into industry.

This reform has a major aim to base the Vocational Education Training on competences as well as to individualise routes. On the other hand, as has been mentioned, with the funding of 15% variable dependent on the level of insertion of students, the centres must be permeable and proactive in order to adjust the training offer to the real labour needs of its productive fabric of reference.

10.3 Dual VET in Finland

Approximately 20% of VET students choose dual routes, a relatively low figure if compared to benchmark countries such as Germany or Denmark. Among the students of Finnish dual VET, half do specialisations linked to either Technology and communications or Commerce and administration.

Main characteristics of the Finnish Dual VET

Dual training has a strong presence in the company, between 79% to 80% of the training taking place in the workplace, a minimum of 25 hours weekly, the rest being done in centres (which must receive an accreditation from the Ministry of Education and Culture in order to promote dual routes) and the length of the routes vary between 1 and 3 years depending on the level of qualification of the professionalising studies.

1. Intermediate level, qualifications of 2 to 3 years: level of access to the sector
2. Higher level, qualifications of 1 to 2 years: level equivalent to qualified worker
3. Specialist level, qualifications of 1 to 2 years: level equivalent to head/coordinator of the sector.

The relationship between company and student is established through a training contract that includes the curriculum to undertake in an individual way. This curriculum takes into account the framework curriculum of the Ministry and is based on the acquisition of competences. The technical knowledge is assessed by the training company from a practical exam and the theoretical ones are assessed in the centres. As well as these exams assessing the skills acquired, workers can also take them to accredit skills.

The dual student has a tutor in the company and receives a salary equivalent to 80% of the salary of a qualified worker in the sector to which they belong (the average salary in Finland is €2,600 per month, 80% being €2,080) as well as receiving a payment for the study days in the training centre (approximately €15 euros per day).

The municipality has a relevant role in terms of funding, since it assumes 58% of the costs of the dual training of the companies. On the other hand, the company receives, from the public administration, a compensation of 30% of the apprentice's salary if they had previously been unemployed.

There is no age limit to access

Dual VET in Finland is accessible from all the levels corresponding to professionalising studies (intermediate, higher and specialist) and anyone aged over 15 who has completed basic education can enter. There is no upper age limit for taking part in dual routes. This measure has a major impact on the participation of the population in this training modality since 44% of students in dual in Finland are aged between 25 and 39 and more than 80% are less than 25, whereas 43.7% of VET students based in the school are aged between 15 and 19¹². The reality and the data of participation in dual VET in Finland places it as an option closer to the adult population than young people and is also used as a recycling mechanism (paid) for unemployed workers and is accessible from several pathways.

¹² Finish National board of Education (2016)



**Effect on the capacity of insertion:
non-generation of more offer than supply
of apprentices**

The dual modality in Finland has proved effective against the unemployment of its students, since the unemployment rate of recently qualified dual students is 8% compared to 23% of the "traditional" modality. One of the keys that might explain this difference is that in Finland the generation of places in dual itineraries is equal to the demand of the companies for this type of apprentice: they are the students that must look for a company that wants to take them on. Without this previous stage, a student cannot do an apprenticeship in dual modality, so there is no more VET offer generated than the real demands of the company. In the case of Finland, there are specific offices that can help a person find a company that will contract them as apprentice such as the Offices for economic development and labour market (TE-Toimisto) or they can also start a dual route in the same job that the interested person already has.

**Devices linked to Finnish Dual VET:
Apprentice Office**

Finland has the figure of the Regional or Local Apprentice Office (Oppisopimustoimisto) with diverse functions of support in developing dual routes. This office promotes this training modality among the companies of a region, forming a link between company demand for apprentices, undertaking training work for the company tutors and managing European apprentice mobility projects. In Finland there are currently seven apprentice offices: Turku, Turku Adult School, Raisio, Region of Salo, Forssa, Loimaa, Vakka – Suomi and Axxell.

10.4 Outstanding elements of the case:

- The municipalities are the main VET providers in the country through municipally publicly owned centres with a high capacity of autonomy in running the main operational aspects, contents and pedagogic methodologies.

- A reform has recently been enacted that links a part of the public funding of the centre to the capacity of insertion of the student, something that generates an interest for the centre to converge the capacity and knowledge of its students with the needs of the labour market of reference.
- There is no age limit in dual VET which places the dual training modality as a feasible option for the adult population.
- There are incentives for companies that take on unemployed apprentices, which extends the collective potential of apprentices and makes available to this group a paid training path and with a high capacity of insertion.
- The device of the Apprentice Office is a resource of interest since from the municipal or supra-municipal levels one can articulate a similar device. The aim is to facilitate the critical points of the implementation process of the dual route in centres and companies, since this device makes a "match" between offer and demand of apprentices in dual and can centralise all the administrative and bureaucratic procedures that may slow down the willingness of centres and companies to embark on dual routes.

Summary table if dual VET in Finland

	Finnish Dual VET
Weight in volume of Dual VET students	20%
Consideration of hours spent in the company	Within the training programme
Who determines the training content in company	Training Centre / Municipality
Salary	80% of the salary of a qualified worker from the sector + €15 per day for attending theoretical classes in the training centre
Time spent in the company	Between 70% and 80% of the training. The training can last from between 1 and 3 years.
Period in company	1 day in the week or 1 week during the school year
Accreditation	Stay in company accredited
Training level achieved	Three types: Intermediate, Higher and Specialist

Bibliography

- CEDEFOP (2019) Understanding of apprenticeships in the national context. Finland
- MATTI KYRÖ (2006), Vocational Education training in Finland. Cedefop Panorama series; 130
- FINNISH NATIONAL BOARD OF EDUCATION (2016), Key figures on apprenticeship training in Finland, 2016:7
- FINNISH NATIONAL BOARD OF EDUCATION (2014), Apprenticeship-type schemes and structured work-based learning programmes Finland
- FINNISH NATIONAL BOARD OF EDUCATION (2012), Education, training and demand for labour in Finland by 2025, 2012:16
- FINNISH NATIONAL BOARD OF EDUCATION (2010), Vocational education and training in Finland, 2010:20
- SKILLS PANORAMA (2017), Skills anticipation in Finland. Analytical highlights series
- SPANGAR,T (2012), The German dual training system for a Finnish perspective – Dialogue despite differences. CERGE -EI

Webs consulted

- Helsinki Council <https://www.hel.fi>
- Finnish National Agency for Education <https://www.oph.fi>
- infoFinland.fi <https://www.infofinland.fi> "Vocational Education and Training"
- Ministry of Education and Culture of Finland <https://minedu.fi>
- Suomi.fi <https://www.suomi.fi> "Apprenticeship training"
- Turku Apprenticeship Office www.oppisopimus.turku.fi

11. Ireland: the “Local Education and Training Boards Ireland”

VET and Dual VET in Ireland finds itself in a moment of impasse between two models due to the reform promoted by the government of the Irish Republic through passing the law called “Education and Training Boards Act 2013”, as well as the impulse of other laws relating to the organisation of Vocational Education Training. These reforms have been focused on the governance of the system, the system of qualifications and system of dual training. One of the most significant results of these reforms has been precisely the increase in the options and students in dual routes (Smith, E et al 2015).

11.1 Latest decentralising reforms:

From among all the measures that the reform includes, the most interesting for this case is the “Education and Training Boards Act 2013”, which creates the figure of the “Education Training Boards” (ETB) throughout Ireland, which replaces structures called “Vocational Education Committees” (VEC) in force since 1930. Through this law, also dissolved is the “National Authority of Training and Work” and its functions are assumed by the different ETB and other national bodies such as the SOLAS (Further Education and Skills Service) which sets, together with the Ministry of Education, trade unions and companies, the framework curriculums, the offer of professional groups (10) and qualifications (43) that can be taken on the dual route. This increases de facto the municipal competences in terms of management and programming of the VET and represents a decentralisation of the central authorities towards municipal or supra-municipal authorities.

The 2013 law replaces the 33 VEC, in existence since 1930, with 16 ETB, which brings together a series of municipalities, which choose the majority of the 21 members of each ETB. For its weight in the country, the city of Dublin has a specific ETB for its region, called the City of Dublin Education and Training Board.

All the ETB are made up of 21 members, and of these:

- 12 are chosen by the council/s of the ETB
- 2 are workers representatives of the ETB
- 2 are chosen by the sector groups
- 5 are members of the economic world

Among the functions of the ETB features that of “planning providing, coordinating and revising the

provision of education and training” but also that of maintaining and running the Vocational Education Training centres, planning an undertaking training for unemployed adults and workers (Traineeships, Vocational, Training Opportunities Scheme, Specific Skills Training, training activities and insertion for long-term unemployed as well as training for the prison population) or managing the Post-Leaving Certificate (PLC) focused on people who have dropped out of their studies (the ETB currently undertake training in PLC for 33,000 students around the country). The contents of the training offer of the ETB is established in collaboration with “companies, trade unions, regulating administrations and groups of interest” (Kiladare & Wicklow ETB).

The ETB develop these training courses in their own centres and they are also the entry to dual VET, which is done in the training centre, although as they progress the apprentices leave the ETB to continue their dual route in institutes of higher education.

11.2 Characteristics of the Dual VET

Despite the boost that the Irish government has wanted to give Dual VET around the country, this training route is still a minority within the whole of VET students and CEDEFOP places the percentage of dual VET students and VET students at 10% and 30%.

The minimum entry age into dual VET is 16 and a basic level of studies is required. Access is also possible via the PLC (Post-Leaving Certificate), which are qualification roots for the population that has dropped out of the school system. Access is allowed without any of these accreditations after the age of 18 if they show they have had 3 years’ professional experience in the sector they wish to enter and pass a personal interview.

The length of the dual routes in Ireland are normally 4 years and there are some exceptions of 3 or 2. The apprentice must be contracted in the company where they want to undertake the dual route before starting it. The apprentice is therefore linked to the company from the beginning with a work contract (normally specific dual apprenticeship) and is considered as a member of the workforce. At least 50% of the training must take place in the workplaces, normally being around 66%.

The apprentice receives a weekly salary from the workplace from the beginning to the end of the training period (between 2 and 4 years) which in some cases may be complemented by the public administrations, and in specific cases, there are travel grants. This salary increases as the apprentice progresses and varies greatly, depending on the sector in which the training is done. The first year might be between €600-800 gross monthly while by the fourth year it is about €1,200 gross monthly, but may be higher in some cases.

The sectors that have most dual routes in their companies are construction and electronics. Companies can receive tax benefits or support if they generate dual training routes aimed at specific groups such as women, unqualified workers, long-term unemployed or the disabled.

11.3 Dual VET by stages

La FP dual se desarrolla normalmente en programas de cuatro años, con siete fases; cuatro de estas fases transcurren en la empresa y tres en centros de formación.

- Stage 1: in company (Deliver to employer), 12 weeks in length
- Stage 2: in and ETB centre, 20 weeks in length
- Stage 3: in company, 26 weeks in length
- Stage 4: in a technological or secondary school, 10-11 weeks in length
- Stage 5: in company, 26 weeks in length
- Stage 6: in a technological or secondary school (approximately 10 weeks in length), 10-11 weeks in length
- Stage 7: in company, 12 weeks in length

Stage one takes place in the company with a relatively short duration since the apprentice must first have a job in a company. This practice is recurrent in countries such as Switzerland or Finland (among others) in order not to generate more dual routes than those that have a big potential of insertion for insertion (not generating

more supply than demand). Normally, after two weeks of starting work in the company, the company can start procedures through the ETB in order for the job to become dual training. The future apprentice has several means to look for a company that will accept and hire them as an apprentice, such as the public employment offices, indicating their willingness to begin dual studies, entities of diverse types linked to the social employment world, or the very ETB (main route).

In order for a company to be able take on apprentices in dual training they must be accredited by the national body, the SOLAS (Further Education and Skills Service), which evaluates the capacity and means of the companies to take on apprentices and develop the contents and training curriculum.

Stage 2 takes place in an ETB centre and is the entry to a centre to undertake training where the dual itineraries are considered which last approximately 40 weeks of actual training (it does not include vocational periods), 20 of these weeks taking place in ETB centres. In relation to the period in the company, this is normally 76 weeks spread between stages 1,3,5 and 7 (CEDEFOP). The length of the periods in each stage is variable according to the sector, and sometimes, the specific qualification.

In stages 4 and 6, the training in the training centre of the apprentices takes place in institutes of a more advanced level than the ETB, as is the case of technical schools or higher secondary schools (depending on the professional branch they go to one place or another). Normally stages 4 and 6 each last 10 weeks. It should be pointed out that the apprentices have to pay a fee for entering these higher institutes that range between €600 and €3,000 depending on the sector where their training route is placed, the most normal amount being €1,500.

11.4 Anticipation of training needs

The Irish system has recently been provided with the mechanisms to anticipate the needs such as the Apprenticeship Council and occasional curriculum review systems characterised by an agility in procedures. They are described below:

The Apprenticeship Council

Created by the Ministry of Education and Skills in 2014, with the mission of implementing recommendations by national agents and also placing VET in those emerging sectors that require a qualified workforce and with advanced competences in the training system.

This council has the following functions:

- Developing notifications of proposals for creating new training contents in areas where there is no VET operating.
- Examine and analyse proposals deriving from the notifications.
- Produce reports for the Department of Education and Competences about new feasible apprenticeships, taking into account the sustainability of the proposals received.
- Monitor the development by industry and the training partners of the proposals selected, including the development of the curriculum, the length and linked training level.

This Council takes into account the competence needs in current and future courses, including data and reports produced by expert groups about competence needs and research devices.

The Council is made up of companies, trade unions, public educational management bodies and the Ministry of Education and Competences.

Agile curricular revision mechanism

As a response to the demands of different sectors oriented towards a lack of adaptation of the curricular contents and at an inadequate speed of renewing contents, the latest reforms of the Irish VET system has created mechanisms and a type of governance of the CV that favours adaptation at a local level of the curricula as well as a series of agile mechanisms that enable the quick revision and modification of the different

CV. The most seriously affected sectors in terms of this lack of adaptation to the reality of the sector are mainly agricultural machinery, interface between mechanics and electronics (Industry 4.0), electronics, the motor industry, informatics and communications, green economy and new materials (Apprenticeship Real-life learning).

To deal with these demands a series of measures has been introduced such as:

- Leadership by the companies in setting the minimum standards from which higher education centres and the ETB develop the CV.
- Breaking with the centralist logic in the initiative, revision and approval of CV in favour of giving authority to the municipal educational authorities in the annual revision of a maximum of 10% of the CV they offer without having to obtain the approval of this CV from the higher authorities.
- The obligatory revision every 5 years of the curricula of the different training programmes.

Summary table of dual VET in Ireland

	Dual VET in Ireland
Weight in volume of Dual VET students	20%
Consideration of hours spent in the company	Within the training programme
Who determines the training content in company	Training Centre and Education Training Board (ETB)
Salary	Annual increase, usually going from €600 gross monthly to €1,200 gross monthly
Time spent in the company	65%.
The training route may last 2-4 years.	Por fases alternativas centro-empresa, de entre 10 y 26 semanas
Period in company	By alternate stages centre-company of between 10 and 26 weeks.
Accreditation	Stage in accredited company
Training level achieved	Diverse within secondary level

11.5 Outstanding elements of the case:

- Ireland is a system that has recently gone for a decentralisation of the management and implementation of training towards bodies of a municipal nature. This decentralisation is occurring in a satisfactory way and is producing good results.
- The managing bodies of the training are called Education Training Boards (ETB) made up of agents chosen by councils, workers' representatives, groups and companies.
- There are many entry pathways to Dual VET, from levels of basic secondary, the second chance programmes (Post-Leaving Certificates) and over 18s who accredit 3 years' experience in the sector where they want to train.
- The salary of the apprentices increases each year that the apprentice continues in the training the company.
- Dual VET takes place in "stages" in specific lengths of time in the company and centre.
- In the final stages in the centres the apprentice must pay an average quota of €1,500.
- There is a concern in the system of not generating more offer than demand for apprentices, so one of the requisites for an apprentice to embark on a dual route is that they have a previously-signed contract with the company in which they want to train.
- There is a specific body (SOLAS) that accredits the companies to be able to take on apprentices in dual format.
- This system has several professional associations to revise and update the curriculums, especially in sectors where an obvious imbalance is detected between the training contents and the reality of industry.

Bibliography

- BURKE, N.; CONDON, N. HOGAN, A. (2016). Vocational education and training in Europe – Ireland. Cedefop ReferNet VET in Europe reports; 2016
- CITY OF DUBLIN EDUCATION AND TRAINING BOARD (2015) Education, Training and Youth services Strategy 2015–2020.
- DEPARTMENT OF EDUCATION AND SKILLS (2013) Review of Apprenticeship Training in Ireland
- HOUSES OF THE OIREACHTAS (2013); "Education and Training Boards Act 2013"
- SMITH, ERICA, GONON, PHILIPP, FOLEY, ANNETTE. (2015). Architectures for Apprenticeship: Achieving Economic and Social Goals.

Webs consulted

- Apprenticeship Real-life learning <http://www.apprenticeship.ie>
- Dublin and Dún Laoghaire Education and Training Board <http://www.ddletb.ie/>
- Cedefop European database on apprenticeship schemes: Ireland <http://www.cedefop.europa.eu/sv/publications-and-resources/data-visualisations/apprenticeship-schemes/scheme-fiches/apprenticeships>
- City of Dublin Education and Training Board <http://cityofdublin.etb.ie/>
- Education and Boards Training Ireland /www.etbi.ie
- Kerry ETB training center <http://kerryetbtrainingcentre.ie>
- Kiladare & Wicklow ETB <http://kildarewicklow.etb.ie>
- Web of the apprentice of Dublin <https://dublintrainingcentres.ie>



12. Belgium, Bruxelles Formation

Belgium is a country whose system of government is a Federal Parliamentary Monarchy with more than 11 million inhabitants and three levels of government: Federal, Government of the communities (Flemish, Walloon and German) and regional level.

Different communities cohabit in Belgium such as the Flemish one, mainly situated in the region of Flanders (north) where they speak Dutch and represent approximately 57% of the population, the Francophone community, mainly situated in the Wallonia region (south), 42% of the population, and the German-speaking community, which represents 1% of the population and is mainly in the south-east of the country, within the Wallonia region. Apart from the regions of Flanders and Wallonia, Belgium has a third region, called Brussels capital.

This case study is in the Brussels capital region, since it has a scope equivalent to the city of Brussels and its metropolitan area where government bodies of all three communities coexist. The government bodies of the communities have the competences, awarded by law, for the promotion of the language, education and the majority of centres in the country as well as the cultural facilities.

12.1 Coexistence of the training managers

In the case of the Brussels Capital region, two bodies coexist, one linked to the Francophone community, Bruxelles Formation, and the other to the Flemish community, the Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (VDAB), which directly manage the training offer of the region.

Generally speaking, both bodies have similar competences and functions, manage the training of their ascribed centres, programme short-term training for different groups and act as a hinge between industry, training centres, student population and the job-seeking population (active employment policies).

This study, however, will be focused on the specific case of Bruxelles Formation, dependent on the Francophone community.

12.2 Bruxelles Formation

Bruxelles Formation has two main attributes which are those of being a training operator from the ascribed centres as well as managing Vocational Education Training in the Brussels region.

The functions, objectives, missions and means it has at its disposal are set from specific "Management Contracts", the current one covering the period 2017-2020. Specifically, this management

contract attributes to Bruxelles Formation, among other things, the functions of "Organising the Vocational Education Training in Brussels". Specifically this function is carried out from the regulation of the Francophone Vocational Education Training offer in Brussels. This Vocational Education Training must provide a response to the needs of the job occupants (Bruxelles Formation 2017) and the needs are detected from an analysis of the needs of the labour market and assessment of the existing training offer. This task is undertaken by the Employment and Training Observatory of Brussels (OBEF) through the Instance Bassin Enseignement Formation Emploi of the Wallonia and Brussels regions (done in nearby points). Both work in close collaboration with different productive sectors, actors and entities that intervene in the local development of the capital.

Bruxelles Formation also has its own Vocational Education Training centres that it runs. These centres have an extensive autonomy in implementing the training offer based on the principle of "freedom of education" which the Belgian Constitution awards, and this represents a limitation in the interference of the regional or community government in the contents given by the network of VET centres of Bruxelles Formation (Equavet 2016).

Another task assigned to Bruxelles Formation is that of orientation (in centre and online) towards

professionalising studies, this tool not only aimed at the school age population, but also at the adult population who want to specialise, recycle themselves or re-enter the labour market.

12.3 Dual VET in Belgium

The main competences in the management and curricular development of Vocational Education Training in Belgium is the responsibility of the Community, in the form of supporting the regional devices (such as Bruxelles Formation), which is detailed below, of detection and anticipation of competences that the labour market will require.

Vocational Education Training in Belgium is of great importance given that 60% of students in the country choose this option (OECD 2018), but the percentage of VET students following dual routes represent approximately 4% (CEDEFOP).

There are two training programmes in which one can choose a dual route, called "Apprentissage" and "Chef d'entreprise":

- **Apprentissage:** these dual routes mainly last 3 years and young people aged 15-25 can take them. The link to the company is done through a specific training contract (apprentice), with a probation period of three months. The alternating system begins as from the 1st year in which 3.5 days per week are in the centre and 1.5 in the company, whereas in the 2nd and 3rd years the training time in the company increases from 1.5 days to 4, while the weekly time in the training centre goes from 3.5 to 1 day. The weekly timetable of the apprentices, adding the training time in the centre and company, cannot be more than 38 hours. Access is through taking or having taken initial secondary qualifications. The aim of this training is to learn a profession. Access to this training is free.
- **Chef d'entreprise:** they mainly last 2 years but can be from 1 or 3 years depending on the sector. The link to the company is through a specific contract and the alternating system is of 3-4 days depending on the specific training. The weekly timetable of the apprentices, adding the training time in the centre and company, cannot be more than 38 hours. Access is through a certificate of "Apprentissage", a specific exam, having completed secondary education, or from obtaining a VET qualification and passing an exam. The aim of this training is to look deeper

into a profession or become an entrepreneur in the sector with guarantees. Access to this training has a cost which is variable depending on the centre and training sector.

Apprentices of dual routes receive a salary, which the company pays, which increases as they complete their training years (see summary table at the end of the section).

As well as strictly organisational aspects, the Dual VET system in Brussels has some characteristic elements (some shared with the rest of Belgium) that give it a certain point of singularity:

- **Annual bonus** if the course is completed: as well as the salary and possible travel grants, in the case of the Apprentissage of the Brussels region they have the right to a bonus for completing the training courses of €500 in the first year and €750 in the second and third year (Service Formation PME 2018).
- **Service of intermediation** with companies and administrative management: as an initial condition to begin a dual route, the apprentice of the two modalities must have a prior training contract with the company that will take them. For the future apprentice to obtain one they must take part in "Le délégué à la tutelle". The role of this figure, among others, is to guide and help people looking for companies to join in dual modality and to be an intermediary with the companies. This figure is often of a sectorial nature, that is, the specific people who undertake it belong to specific sectors and have direct contact. This figure is also responsible for the administrative and procedural aspects necessary to start the stage of the apprentice in the company and payment of salaries, grants...
- **The Centres of Education and Alternating Training (CEFA).** Dual Vocational Education Training in Belgium takes place in the CEFA, where the training in the centre is given of the dual routes. This type of centre, used only for students in dual modality, is normally integrated into a general secondary school, or as an independent device. The logic is that due to the type of alternation (days in the week), and difference of the weight of the contents in the centre compared to non-dual groups, it is better to shape specific devices for the best adaptation of both in their training contexts.

12.4 Local planning mechanisms of the VET offer

Belgian legislation clearly states that the government of the francophone linguistic community of Belgium (COCOF) considers the competences of programming the curriculum of Vocational Education Training in the regions of Wallonia and Brussels for the francophone centres that produce the framework curriculums. Among the different devices that the government of the francophone community has feature three that have this task of curricular generation and updating.

1. Le Conseil General de concertation pour l'enseignement secondaire,
2. Le Conseil General de concertation pour l'enseignement spécialisé précités
3. La Commission communautaire française concernant le Service Francophone des Métiers et des Qualifications (SFMQ) which integrates Bruxelles Formation within its organisational chart.

Observatory of employment and training of russels (OBEF)

Bruxelles Formation is responsible for updating the contents, detecting professional profiles and foreseeing the needs of the local labour market in the Observatory of employment and training of Brussels (OBEF). This observatory aims to identify the needs of the labour market in terms of training and competences, as well as developing sectorial analyses. Its task contributes decisively to programming Vocational Education Training in the Region of Brussels. It develops this task through work groups in collaboration with Bruxelles Formation and companies. The aim of these work groups is to anticipate the needs of qualifications and competences in the labour market and in specific economic sectors, such as hotel and catering, tourism, technological industries, green economy and conventional and ecological construction, as well as the circular economy (Allinckx, I, 2016).

Les Instances Bassin

This is an actor that works at a local level. In the region of Wallonia there are a total of 10 Instances Bassin including that of Brussels. Its task is to act as an interface between the educational and business

worlds and support the management and development of professionalising teaching (VET and dual VET apart from other professionalising teaching). The role of this device is to:

- Orientate the Vocational Education Training offer according to the needs of the job market identifying the needs of the sectors/professions as well as the detection of new sectors and professions.
- Support the development of projects common to the world of work and training.

12.5 Outstanding elements of the case:

- In Brussels capital they do something quite unusual in terms of managing centres and this is that there are two bodies of the same rank that manage centres and resources linked to their community of reference, Bruxelles Formation (for the francophone community) and the Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding or VDAB in its initials (for the Flemish community).
- The curricular development of the Vocational Education Training is the responsibility of a specific body of representation of each community which is equivalent to an administrative level higher than municipal.
- The way of planning objectives is through the "Management Contract", which defines objectives to achieve on a time horizon of 4 years.
- The case of Brussels is interesting from the perspective that in a city there is a training operator (lifelong, for adults, for specific groups), orientation and that also directly manages Vocational Education Training (manages contents and own centres), with which a single body has the vision and planning of professionalising training and of the orientation of all its aspects.
- The premise of Bruxelles Formation is that of generating Vocational Education Training "oriented at the needs of the occupants" and to achieve this is supported by diverse ad-hoc devices such as the Observatory of employment and training of Brussels, or the Instances Bassin, a local device where the productive sectors collaborate to detect tendencies.
- There are two differentiated dual routes, the Apprentissage and Chef Enterprise. There are some significant differences, such as the age limit, cost of training or the existence of bonuses on completing the academic year.

■ There is an income bonus (between €500 and €700) for each course that the apprentice completes in the Apprentissage modality. The salary of the apprentices in all the modalities is progressive and increases in each course.

■ Dual VET, in its theoretical aspect, takes place in specific centres for dual training that is normally found inside secondary centres.

Summary table of dual VET in Belgium

	Apprentissage		Chef Enterprise	
	Salary	Training in com- pany	Salary	Training in com- pany
1st year	€270.94	1.5 days out of 5	€457-773	3-4 days out of 5
2nd year	€382.50	3.5 days out of 5	€548-914	3-4 days out of 5
3rd year	€510.20	3.5 days out of 5	€914	3-4 days out of 5
Bonuses	€500-750 for each year of training completed		Without bonuses	
Ages of access	15-25		Over 18 without restrictions	
Focus	Learn profession		Deepen a profession and/or become entrepre- neur in sector	
Average length of route	3 years			
Weight of dual VET	Less than 10% of VET students			
Time of training in company	60% of the route			
Cost training for student	Free		Not free	
Access	After initial secondary qualification		On having stopped studying secondary, specific exams or having VET qualification and passed an exam	
Maximum timetable	38 hours weekly		38 hours weekly	

Bibliography

- ALLINCKX, I.; MONICO D. (2016). Vocational education and training in Europe – Belgium. Cedefop ReferNet VET in Europe reports; 2016.
- BRUXELLES FORMATION (2017) Contrat de gestion 2017-2022
- CONSEIL DE LA COMMUNAUTÉ FRANÇAISE (1997): Décret définissant les missions prioritaires de l'enseignement fondamental et de l'enseignement secondaire et organisant les structures propres à les atteindre, 24 de juillet 1997
- CONTRACT DE GESTION 2017-2020 (2017) Bruxelles Formation
- IFAPME (2018) Le baromètre de l'IFAPME Indicateurs liés à la mise en oeuvre du contrat de gestion 2017-2022
- EQUAVET (2016) Report of Belgium
- OCDE (2018) Education at a Glance. Conuntry report. Belgium,
- SERVICE FORMATION PME (2018) Cadre social du contrat d'alternance 2018-2019
- SERVICE FRANCOPHONE DES MÉTIERS ET DES QUALIFICATIONS (2013) Découvrir le SFMQ

Webs consulted

- Bassin F <http://bassinefe.be/>
- Bassin F Bruxelles <https://www.bassinefe-bxl.be>
- Bruxelles Formation <http://www.bruxellesformation.be>
- Bruxelles-J (servei d'orientació juvenil de Brussel·les) www.bruxelles-j.be
- Cedefop European database on apprenticeship schemes: Belgium <http://www.cedefop.europa.eu/sv/publications-and-resources/data-visualisations/apprenticeship-schemes/scheme-fiches/dual-training>
- Euroguidance <https://www.euroguidance-france.org>
- Service formation PME <http://www.sVETme.spfb.brussels/>
- Service Francophone des Metiers et Qualifications <http://www.sfmq.cfwb.be>
- Ville de Bruxelles <https://www.bruxelles.be/formations>
- Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding <https://www.vdab.be/>

13. Denmark: the local training committees and local agents

The Danish territorial system has a state, provincial (5) and municipal (98) level. This system is characterised for being one that has most autonomy transferred to the municipalities and provinces in the whole EU, together with Sweden (Bosch, N. et al 2008) since the regional level (provincial in the case of Denmark) is a territorial level with few responsibilities. This can be clearly sensed in the management and creation of the contents of the educational programmes, and especially, in the training contents of the VET, with direct intervention of the national and local training committees that will be described below.

13.1 Evolución de las normativas vinculadas a la FP

In 1814 Denmark introduced the first Education Law, becoming the second country in the world to legislate mandatory education after Prussia (OECD 2015). This law was called "Folkeskole". Since then this law has been modified 6 times in 1903, 1937, 1958, 1975, 1993 and 2003. One of the main traits of Danish legislation in education are the ages set for mandatory schooling, which is from 7 to 16. On the other hand, during the 2000s, the Danish government started a series of reforms of different scope and of specific matters. These cover from the reform of teacher training (2012 and 2013) or specific programmes to reduce the dropout rate in VET such as the "Better and more attractive Vocational Education Training programmes" (Bedre og mere attraktive erhvervsuddannelser) of 2014. In 2015 a new reform was introduced focused on ensuring the quality of the contents of Vocational Education Training and ensuring the completion of VET studies by the students. This reform has 4 main objectives:

- Objective 1: more students must choose the VET option.
- Objective 2: more VET students must complete their studies. In 2012 the completion rate of studies was 52% at the time of passing the reform. Through this reform the aim is for this rate to increase to 60% by 2020 and 67% by 2025.
- Objective 3: seeking the maximum potential of the students: increasing the number of students who achieve a pass without any failed subject and maintain the insertion rates of the recent graduates.
- Objective 4: the trust and good functioning of VET must be strengthened. The trust of the companies in the VET graduates must increase.

13.2 Gradual adaptation of the VET programmes

In the particular case of Danish VET there are diverse institutions at a local level that intervene in the plan-

ning and management. The aim of the participation of these local bodies, created ad-hoc to influence in the contents of the VET of their territory, is that of the maximum adaptation to the training requirements and of qualified workforce necessary in the area. One of the objectives parallel to this planning and management structure is known as Gradual Adaptation Capacity, which results from the gradual adaptation of changes that come from continual planning of contents and programmes in contrast to an educational reform or of contents that makes the brusque adoption of new measures to be introduced necessary (Tarriño 2011).

An actor that, despite not being of a municipal sphere, plays an important role in the anticipation and gradual adoption of competences in the training programmes, is the Assessment Council for Initial Vocational Education Training (Rådet for de Grundlæggende Erhvervsrettede Uddannelser – REU), an organ that works nationally, made up of 25 members of social agents, associations of centres, teachers' associations and other members designated by the Ministry of Education. Its task is that of monitoring the tendencies in the labour market and drawing up recommendations to establish new VET offer, adapting the existing programmes or declassifying obsolete qualifications.

13.3 Governance of VET and approach at the local level

Denmark is one of the countries that gives more autonomy and resources to teaching centres. This autonomy increases according to the level of instruction the centres offer. In any case, the governance of the Danish educational system is always shared between the central administration (Ministry of Education) municipalities and social agents, who are involved in all the decision-making spaces and, especially, in the spheres of decision that respect company-based training.

In the basic primary and secondary school levels the State establishes the national priorities while the 98 municipalities take the majority of decisions in terms of educational policy and contents. In higher and post-secondary education it is the same educational body (centre) or the local level (local training committees) that sets the guidelines in terms of management and contents, with self-government, under an umbrella of parameters and shared objectives that the Ministry of Education marks together with sectorial representatives (the national sectorial committees). Below we detail the actors and the regulatory functions they have in the governance of Danish VET:

- Ministry of Education: it sets the general objectives of the VET studies and defines a framework curriculum. Later on, both social agents and companies and centres can adapt this curriculum and pedagogic methodologies to the needs of the labour market of reference.
- The national sectorial committees (Faglige udvalg): they contribute to defining specific qualifications of their sector in terms of structure of the contents, structure of the training offer, length and assessment of these qualifications, always respecting the general framework set by the ministry. Workers and businesspersons from the sector are equally represented on these committees. The aim of these committees is to involve the social agents in order to ensure and strengthen the quality of the Vocational Education Training linked to their sector. These committees undertake functions such as:
 - Certify the companies so that they can take on apprentices in their installations attending to the following criteria: that the companies have a specified level of technology and that they offer a variety of tasks sufficient for ensuring the compliance with the training programme in the company.
 - They have the responsibility of generating or reducing the VET offer of specific branches according to the evolution of the labour market.

The national sectorial committee would be the equivalent to the German or Swiss Chambers of Commerce. The Ministry of Education can appoint new commercial committees in order to quickly develop new professions, in the case that there is not a commercial committee associated with these new professions, to thus ensure a quick adaptation to the qualification needs of the labour market. These committees are paid for by the same social agents and normally have a secretariat that produces the sectorial analysis, case studies, among other functions.

- Local training committees (Lokale uddannelsesudvalg): formed by invited local entities and agents.

Their main task is that of assessment and management in the field of VET training programmes that the centres develop in the municipality or city to which they are linked. They constitute a direct nexus between the needs of the labour market and the training centres. The local committees are made up of regional representatives of the national sectorial committees that the Ministry of Education appoints at the behest of the social agents. There is normally more than one local committee linked to each centre, since these committees are related to a specific professional group and in this way the different offer that a centre can provide is covered. The committees also include representatives of the local centres and teachers and is the body entrusted to assess the centres about the contents or branches to develop according to the situation of the local labour market. The centres, with great autonomy, adapt the contents that the VET Offer to the recommendations of the local training committees, since the centres are responsible for the local planning of VET programmes and this is reflected in the "Local educational plan".

This reality means that the contents of the same VET qualification may vary depending on the centre where it is given, since they focus on adapting to the needs of the local labour market. All the centres develop specific training plans for their VET qualifications in direct collaboration with the companies and social agents.

13.4 Dual VET in Denmark.

The Danish VET system plans two Vocational Education Training routes: 1) Alternating training and 2) that called "Practical Training Routes in the New Apprenticeship". The former is followed by 60% of students in professionalising education, the latter by 40%.

Alternating Vocational Education Training

Alternating Vocational Education Training is divided into two specific stages, "the basic course and the "main course". The basic course is undertaken at the beginning of the training and has a duration of 5 and 6 months. On this course the students follow common subjects such as Danish language, English and Mathematics. These signatures, even though common, are specific and applied to the language and needs of the student's specific training sector. Thus the mathematics that future mechanics and future electricians study, for example, are different and adapted to their sector.

Once the basic course is completed, the main course is taken, which lasts an average of between 3 and 3.5 years. During this time the training in the company represents between 50% and 70% of the training. The structure of this apprenticeship is known as "sandwich-type programme" in which the training in the company and the centre occurs in periods that range from 5 to 10 weeks. This training in company is done from an apprenticeship contract between the company and students, where the student receives a salary (between 56% and 72% of the Danish minimum salary depending on the year being studied)¹³ and is supervised by a tutor trained and accredited by the Local Commercial Committees. The salary of the apprentice in the company is paid by the company, which also collaborates with the training costs of the apprentice when they are training in the centre. The companies that participate in the Dual VET receive incentives to take part in Dual VET programmes by means of a fund created for this purpose (Arbejdsgivernes Elevrefusion) which in 2018 was of €508M¹⁴.

To complete their training, the students in dual training must pass a single exam for the whole country (to guarantee standards of quality and to achieve objectives) produced and under the control of the national committees.

Practical Training Routes in the New Apprenticeship

The Practical Training Routes in the New Apprenticeship are oriented towards "students who prefer a practical training in the school training" (Danish Ministry of Education) and is done entirely in a company. The students are committed to acquire the same common competences that their colleagues have done in the basic course in the first year of the stage in the company. This programme requires more flexibility by the actors involved (student, company and centre). This training option was introduced to facilitate the access of students "more inclined towards apprenticeship through practical methods" (Danish Ministry of Education).

Summary table of dual VET in Denmark

	Danish dual VET
Weight in volume of Dual VET students	96.8% ¹⁵
Consideration of hours spent in the company	Within the training programme
Length of dual programmes	Normally 3-4 years (maximum established by law 4.5 years)
Governance of system	VET centres are independents (state freehold)
Who determines the training content in the company	Training centre
Salary	Between 56% and 72% of the minimum salary.
Time spent in the company	Average of 2/3 of the training period.
Period in company	Successive periods centre – company of 5 to 10 weeks.
Accreditation	Stage in company accredited
Training level achieved	Normally secondary (EQF 3 or 4) although there is a higher degree level (EQF 5) ¹⁶

¹³Finnish National board of Education (2016) / ¹⁴<https://www.atp.dk/atp-som-administrator/pension-og-erhvervssikring/aub>

¹⁵Finnish National board of Education (2016) / ¹⁶<https://www.apprenticeship-toolbox.eu/>

13.5 Outstanding elements of the case

- The Danish system is one of those that provides most local autonomy to the centres. This fact marks decisively the methodology of setting the training contents of the VET programmes of the centres, sharply focused on the local labour market.
- The autonomy of the centres focuses, among other aspects, on gradually adapting the contents given to the needs of the labour market instead of turning to reforms of curriculums or training plans disruptively or brusquely.
- Another defining feature of the model is the importance that the local agents have in taking decisions in terms of both the structuring of the VET (branches) and in the content of the training plans. They have decision-making functions instead of consultative ones. The decisions are taken jointly between the administration and social agents.
- The local actor that contributes as a transmission chain of the needs of the local labour market and the centres are called "Local Training Committees), made up of regional representatives of the sectors. They advise the centres of the region in question about the training needs and contents that the VET programmes must have in each centre in order to increase the employability of the graduates in the area and the centres, based on their extensive autonomy, they adapt the training programmes. This means that the same qualification can be taught in different ways depending on the reality of the local labour market.
- The structure of the Danish dual VET is called "sandwich-type programme", in which the training in the company and centre is successive in periods that range from 5 to 10 weeks.

Bibliography

- BOSCH, N., ESPASA, M. (2008) Las competencias de los gobiernos locales supramunicipales. Fundación Democracia y Gobierno Local y Diputació de Barcelona
- CEDEFOP(2012) Panorama series. Vocational Education and Training in Denmark.
- EQAVET (2016). Report of Denmark Spring 2016
- FINNISH NATIONAL BOARD OF EDUCATION (2016).Key figures on apprenticeship training in Finland, 2016:7
- IMPROVING VOCATIONAL EDUCATION AND TRAINING OVERVIEW OF REFORM OF THE DANISH VOCATIONAL EDUCATION SYSTEM.(2014). Danish Ministry of Education.
- OCDE (2015) Política educativa en perspectiva 2015: HACER POSIBLES LAS REFORMAS. OCDE y Fundación Santillana
- TARRIÑO, A., LLORET (2011), T. Ejemplos Internacionales de innovación en VET. Estudios sobre educación 21/2011. Universidad de Navarra.
- THOMAS DEISSINGER & JOSEF AFF & ALISON FULLER &CHRISTIAN H. JØRGENSEN (EDS.) 2011: Hybrid Qualifications – structural and political issues in the context of European VET policy Bern, Zürich, New York, London. Peter Lang Publ.

Webs consulted

- Apprenticeship toolbox <https://www.apprenticeshiptoolbox.eu/denmark/education-system-and-vet-system-in-denmark/153-education-system-and-vet-system-in-denmark>
- CEDEFOP: <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes/scheme-fiches/apprenticeship>
- Ministeri d'Infància, educació i equitat de gènere danès <http://eng.uvm.dk/>
- Ministeri d'Educació danès <http://eng.uvm.dk/Education/Overview-of-the-Danish-Education-System>
- Ministeri d'Educació danès <http://eng.uvm.dk/Education/Upper-secondary-education/Vocational-Education-and-Training-%28vet%29>
- Ministeri assumptes exteriors danès <http://spanien.um.dk/es/conoce-dinamarca/informacion-sobre-dinamarca/educacion>
- Pàgina Anglòinfo <https://www.angloinfo.com/denmark/how-to/page/denmark-family-schooling-education-the-school-system>
- Pàgina Information planet <http://www.informationplanet.es/dinamarca/estudiar-en-dinamarca/sistema-educativo-de-dinamarca>
- Pàgina Unesco: http://www.unevoc.unesco.org/tvetipedia.0.html?&tx_drwiki_pi1%5Bkeyword%5D=Denmark
- Pàgina MavoieProEurope <http://mavoieproeurope.onisep.fr/en/initial-vocational-education-and-training-in-europe/denmark/>
- EURYDICE <https://webgate.ec.europa.eu/VETfis/mwikis/eurydice/index.php/Denmark:Overview>
- Portal Study in Denmark <http://studyindenmark.dk/>

14. Compilation of good practices and resources

The different models of cities dealt with in this second part of the project point to multiple mechanisms, devices and ways of managing the apprenticeship and training systems, valid in their context and the result of a specific distribution of competences between the different administrative levels that makes it possible.

As a common denominator it seems that the emphasis of these policies is placed above all on the participation of the social agents, the anticipation of the training needs and the boosting of devices/mechanisms to facilitate access to the dual vocational training system for all the agents involved (centres, students and companies)

Given that from these cases shown we cannot produce a sole model or recipe for the cities in our territory, below we list diverse elements and resources addressed to the management and improvement of the apprenticeship system grouped by type. The aim is that the cities and supra-municipal or autonomous community agents have this instrument of consultation in order to assess the possibilities of implementing those mechanisms or initiatives that most adapt to their needs or, at least serve as an element to inspire or as a base to develop their initiatives.

14.1 Good practices detected linked to the VET system

Models of administrative organisation of vocational training

The different spheres of decision where the command and planning of VET takes place often shows the degree of importance that VET has in a country or region in its productive model or the "demographic" weight VET has in its distribution of levels of instruction. VET is often located in high-level spheres of policy decision-making, which could be the prime minister, or linking diverse ministries in the planning and execution of VET contributes to its visibility and a privileged position on the political agenda of governments. Apart from the examples highlighted below, we should mention the case of the Basque Country, where the VET system depends on the Lehendakari (the President of the Autonomous Region), or in the Spanish

State, where the Ministry of Education incorporates vocational training, raising VET to the rank of Ministry and not of general executive.

- **HOLLAND:** a total of 5 ministries intervene in the management and development of Vocational Training (Education, Agriculture, Economics, Employment and Justice), given the strategic and quantitative weight of vocational training in the country.
- **SWITZERLAND:** the cantons (regions) are responsible for developing the framework curriculum of professionalising studies. This model enables territorial adaptation of the studies undertaken, very closely linked to industry of the regions.
- **AUSTRALIA:** the planning of VET is the responsibility of the Council of Ministers for VET (MCVETE). The decision-making spheres involve the prime minister of the federation, the prime ministers of the 6 regions that make up the Australian territory as well as diverse federal ministers.
- **QUEBEC:** education up to VET levels is managed by what are known as the School Boards (with a local scope or group of municipalities), the representatives of which are chosen by universal suffrage in each neighbourhood or district of the city. The defenders of this system of election of the managers of education/training assert that this way the candidates to be representatives on the School Boards must take into account, both in their programme and mandate, the training/educational needs of the area they represent and prioritise local training planning vs. planning with regional interests where territorial imbalances may emerge. In the specific case of Quebec, it is these boards that take the dual route proposals and modifications of the training offer to the regional ministry.
- **IRELAND:** the management and planning of VET is articulated from the Education Training Boards (ETB), which have a municipal scope. They are made up of representatives of the councils involved, workers' representatives, the economic world and representatives of families.
- **FINLAND:** the municipalities (municipal districts or aggregations of them) are the main suppliers of vocational training with 80% of the offer. The centres are municipally owned and they enjoy extensive autonomy in terms of teaching and structuring of contents.
- **BRUSSELS:** the city establishes what are called "Management Contracts" linked to Education-Training. These set macro goals that must be worked with and achieved in time periods of 4 years.

Co-responsibility of the social agents:

In the countries with a benchmark VET there is a strong connection with the social agents in the planning and execution of these types of training. The interaction of the administrations responsible for VET and the social agents is based on a co-responsibility by both parties in the planning and updating of contents, but also often in the accreditation of companies to take on apprentices or the production and correction of exams for the apprentices. Normally they are the chambers of commerce, trade guilds, or sectorial or business groups of diverse types that carry out this role of interrelations and co-responsibility with the corresponding administrations.

- GERMANY: the German chambers of commerce have the control and organise the final exams of students with the aim of standardising the criteria of setting a common minimum accreditation of competences of the apprentices. They also participate directly in the processes of updating training contents, processes of contracting apprentices, supervision of the quality of the dual teaching in the company and their approval is required to modify, enlarge or reduce the professionalising training offer.
- SWITZERLAND: industry of the country is organised in 600 professional associations. These are responsible for periodically passing on to the responsible administrations the needs of industry for updating or modifying the training offer.
- AUSTRALIA: the national Industry Skills Councils are sectorial business groupings that together with the administrations modify or expand what are called "Training Packages" which incorporate the national standards of the qualifications and set the criteria for recognising them.
- DENMARK: the sectorial committees at a national level and the local training committees are the main bodies that update and programme the VET offer, in which the social agents have a major role, also being present in the cloisters of the Vocational Training centres. They also produce the single exam that the VET students must pass throughout the country to obtain their qualification.
- IRELAND: the companies set the minimum standards from which the different higher education centres and ETBs develop the training curriculum.
- IRELAND: one third of the members of the ETB are social agents. The ETB plan the training offer in their region.
- QUEBEC: the task of renewal and expansion of the training offer is developed jointly with industry represented on thirty sectorial committees that define the sectorial workforce needs. The sectorial committees consider

jointly the participation of more than 400 organisations from the labour market, bring together workers' representatives, employers, sectorial associations and guilds.

- HOLLAND: the social agents from each sector set by agreement the payment of the dual apprentices, which can never be less than the IMS.
- FRANCE: the social agents can adapt training contracts to specific objectives through sectorial agreements in order to develop emerging profiles.

Orientation of the reforms

- HOLLAND: from the educational reform of 1996 (Wet Educatieve Beroepsonderwijs) the country significantly reduced the number of VET centres until having forty centres, called Regionaal Opleidingscentrum (ROC), with a capacity of between 2,000 and 24,000 vocational training students (the average is 10,000 students per centre). The aim is to generate a VET campus environment, with a concentration of resources and synergies that in an atomised way is difficult to achieve. This reform also emphasised the decentralisation of state competences towards macro centres, giving them more autonomy and adaptability in the sector of reference.
- IRELAND: the Education and Training Boards Act of 2013 is the main (but not sole) reform of the country's VET system. It creates the Education Training Boards, which are municipal aggregations for managing training. The aim of this reform is to decentralise the management and programming of the training in favour of the represented in the Education Training Boards (municipalities), which are co-responsible for the programming of the dual routes in their territories.
- DENMARK: in 2015 Denmark introduced a reform of VET focused on more students choosing VET, increasing the completion rate of VET studies, maintaining the high rates of insertion of graduates and increasing the trust of the companies in professionalising studies.
- FINLAND: oriented to linking a proportion of the funding of centres (15%) to the results (continuation of studies and labour insertion), as well as a reduction in the number and deepening of the competences that make up the Finnish qualification framework. This measure stimulates the rooting of the training contents to the needs of industry of reference of the centres in order to achieve improvements in the insertion of the graduates and thus obtain more funding.

Research centres to develop contents and anticipate qualifications

Diverse cases considered have specific centres of research and innovation in order to adjust / modify the vocational training offer as well as lead and implementation processes of innovation (curricular, teaching...). They are powerful centres of research that have become a benchmark and which usually bring in territorial agents, public administrators and social agents. A compilation of these types of research centres are:

- GERMANY: Bundesinstitut für Berufsbildung (BIBB) (Federal Institute of Vocational Training)
- SWITZERLAND: Secrétariat d'Etat à la formation, à la recherche et à l'innovation (SERFI).
- AUSTRALIA: National Centre for Vocational Education Research (NCVER), classifies as one of the centres of research into VET with most data and information compiled regarding this subject.
- HOLLAND: since 1954 Holland has considered the sectorial centres of expertise, the Kennijcentrum Beroepsnederwijs Bedrijfsleuen (KBB), as quite unique. There are a total of 19 centres linked to specific sectors that develop the curriculums of the associated professionalising qualifications and act as intermediaries between the productive and educational sectors. They are made up of businesspersons, workers' representatives and training centres from a specific productive branch.
- FINLAND: the Finnish National Forum for Skills Anticipation depends on the central government and integrates workers' representatives, companies, representatives of training centres, researchers and experts. It considers 9 work sectors and its mission is to anticipate, nationally, the qualifications that these sectors will need in the future, in order to ensure a quick adaptation of the linked training contents.
- BRUSSELS: from the Observatory of employment and training of Brussels (OBEF) and the Instance Bassi Enseignement Formation Empli, the training needs are detected of industry in order to implement them in the city's training centres. In this process of detection the different productive sectors collaborate.
- BELGIUM: the Instances Bassin are local devices that act as an interface between the educational and business worlds. They direct the vocational training offer according to the needs of the labour market identifying the needs of the sectors/professions as well as detecting new sectors and professions.
- DENMARK: Advisor Council for Initial Vocational

Training (Rådet for de Grundlæggende Erhvervsrettede Uddannelser – REU) is a body that operates at a national level, made up of 25 members of social agents, associations of centres, teachers' associations and other members designated by the Ministry of Education. Their task is that of monitoring the tendencies of the labour market and produce recommendations to establish new VET offer, adapt the existing courses or declassify obsolete qualifications.

Fast curricular modification

Fast curricular modification is one of the critical aspects of any VET system, and more so in current times, in which new technologies and the evolution of industry has increased the cycles of innovation and



digitalisation is penetrating all the sectors, modifying the professional profiles that companies require as well as the knowledge and skills that these profiles must incorporate. A fast response from the curricular planning becomes key in this context:

- IRELAND: the ETB can undertake an annual review of 10% of the curricular contents of the studies given and every 5 years, obligatorily, the curriculums of all the training programmes are revised.
- DENMARK: the close link of local bodies in the programming of contents of vocational training provides the system with what the Danes call "capacity for gradual adaptation", which prioritises gradual curricular changes according to the needs of the territory instead of abrupt reforms to the curriculum.
- IRELAND: the 'Apprenticeship Council, created in 2014, develops proposals to create VET offer and contents in those emerging productive areas where VET is not present and where a qualified workforce is required with advanced competences. This council is formed of companies, trade unions and diverse public administrations linked to Formation.
- DENMARK: the Ministry of Education can appoint commercial committees to quickly develop new professions in order to ensure a quick adaptation to the qualification needs of the labour market. These committees are aided by the same social agents and normally have a secretariat that prepares the sectorial analyses, case studies, among other functions.

14.2 Good practices detected linked to the Dual VET system

Progressive payment of the apprentices

Progressive payment is an incentive for the apprentice to continue in the training system and their spending power gradually increases as they get older and their experience increases. It is also a mechanism that enables the company to fit the payment to the contribution the apprentice makes in the company in their job, which increases as the apprentice gains experience and becomes professionalised in the company.

- FRANCE: the payment of the apprentices is calculated from two variables: age and year of training in progress. As the apprentices get older and advance in the training, the percentage of the IMS from which the payment is calculated increases. The lowest payment is 25% of the IMS and the maximum is 78%.

- SWITZERLAND: payment of apprentices is increased as they progress in their studies. Normally the monthly payment in the first year is €540 on average and in the fourth year it is €1,200 average, even though the salaries vary substantially depending on the sector where the training company is placed.

- IRELAND: it increases according to the course being studied. The amount of payment also depends on the sector of activity in which the company works. In the first year the monthly payment is around €600 and can reach a maximum of around €1,200.

- AUSTRALIA: the payment of apprentices is progressive according to the year of the course they are studying. The amount they receive, however, does not only depend on this variable, but also on the sector or region in which the company is placed.

Specific centres to take dual VET

There are countries where the different evolution of dual and non-dual students is expressed in specific centres for dual students which respect the different teaching rhythms in the theoretical aspect.

- FRANCE: the Centres de Formation d'Apprentis (CFA) are specific centres where the students on the dual modality develop the specific theoretical contents of its curriculum. The installations of this centre can be inside or outside another Vocational training centre. The aim of this differentiation is to be able to respond to possible different requirements and needs of this type of student. The head of the centre is chosen by the regional council, chambers of commerce, other teaching centres and associations linked to the centre's training activity.

- BRUSSELS: the apprentices on dual routes develop the theoretical curricular part of their training in specific centres for dual apprentices, called Centres d'Education et de Formation en Alternance (CEFA). These centres are normally integrated in a general secondary centre or as an independent device.

Training in diverse companies.

A paradigmatic example of dual VET in which the apprentices can easily do (and it is in fact common) their apprenticeship in diverse companies is SWITZERLAND, since the structure of the productive system of the SME does not enable a single company to develop all



the contents considered in the curriculum. In these cases the apprentice can do their training in diverse companies in order to cover all the curricular contents.

No age limit to take Dual VET

Diverse cases covered do not consider an upper age limit in order to access the dual modality or contract. Normally this circumstance obeys the fact that Dual VET is considered a tool for both requalification and insertion. On the other hand it is easier not to place an age limit of access to the dual VET contract in those countries where the labour conditions of the apprentice contract (pay and hours), as well as the social advantages available, enable the adult population to make a living during the dual apprenticeship.

In this sense there is no age limit in access to dual VET in FINLAND, GERMANY, SWITZERLAND, AUSTRALIA, IRELAND AND BELGIUM. In this latter case there is no age limit in the higher vocational training while in the intermediate training there is.

Incentives to companies for developing Dual VET

Incentives in Vocational Training by the public administrations also covers economic or tax incentives to

allow for the costs deriving from the process of training apprentices. In some cases there is also a bonus for the apprentice who completes their route or for the inclusion of specific groups.

- FINLAND: the company receives a compensation of 30% of the apprentice's salary if they were unemployed before starting the dual route. This measure makes a lot of sense when the dual VET is a requalifying action for the whole population (the case in Finland) irrespective of their age.
- DENMARK: Since 1977, it has had a fund created specifically for incentives for training stages of students in the company (Arbejdsgivernes Elevrefusion), with an annual budget, which in 2018 was 580 million euros.
- HOLLAND: companies receive a subsidy of €2,500 for each dual training route they generate.
- AUSTRALIA: there are diverse incentives to take on dual students. The standard funding is between €800 and €1,000 per apprentice, but there are also incentives if the companies take on an apprentice who has dropped out of the educational system and €1,700 per apprentice who successfully completes their dual route.
- IRELAND: the public administrations can complement the salaries of the apprentice.

- IRELAND: the companies can receive tax benefits and/or support if they take on apprentices from specific groups, such as women, unqualified workers, long-term unemployed or disabled people.
- SWITZERLAND: the confederation assumes 25% of the dual training costs of the apprentices in the company.
- FINLAND: the municipality assumes 58% of the dual training costs of the companies. On the other hand the company receives, from the public administration, a compensation of 30% of the apprentice's salary if they were previously unemployed.

Official accreditation of a company for taking on dual students

In diverse cases covered for this study, the companies that participate in dual routes must receive an official accreditation in order to be able to undertake these routes. Normally this process certifies that the company meets basic conditions for apprenticeship, such as availability of trained tutors, sufficient degree of technology, labour risks, and capacity to train the apprentices in everything within the framework agreement. This is the case for example in:

- GERMANY: the accreditation is given by the chambers of commerce of the sector.
- FINLAND: the accreditation comes from the Ministry of Education.
- IRELAND: a national body linked to VET, the SOLAS (Further Education and Skills Service) must accredit the companies to be able to take on apprentices.
- SWITZERLAND: the companies must have an official certificate to be able to undertake Dual VET.
- AUSTRALIA: the companies must form part of a registry of authorised companies to undertake Dual VET. Forming part of the registry means that the company shows it complies with a series of minimum conditions to take on apprentices.

- DENMARK: the national sectorial committees (Faglige udvalg) certify the companies so that they can take on apprentices taking into account that they have a minimum technological level and that they offer a variety of tasks to ensure the compliance of the training programme in the company.

Support devices for the apprentice in the company to become dualised

Diverse countries studied have offices or specific support devices for dual VET in order to back the dualisation processes, the necessary procedures for all the actors involved (students, companies and centres) and in some cases act as a single window of procedures, information and operations. These devices contribute to the reduction of bureaucratic complexity, which often slows down the initiative of the companies to take on apprentices, and fit the needs of the apprentice companies and that of the apprentice to find a company, since these support devices/offices centralise a large part of the supply and demand of apprenticeship places in a territory of reference. In some cases they also carry out functions of complementary support such as teacher training, approval of the certificate that the companies

need to take on apprentices or manage mobility projects.

- FINLAND: the Regional or Local Apprentice Offices (Opisopimustoimisto) act as a bridge between students and companies, undertaking training for company tutors and managing mobility projects in a specific region or municipality. They also work as a bridge between company and student but the different attributes of the Offices of economic development and labour market (TE-Toimisto) also enter.
- SWITZERLAND: the cantonal vocational training offices that provide support in the creation of apprenticeship places in the companies and act as a bridge between apprentices and companies.



Diverse cases covered do not consider an upper age limit in order to access the dual modality or contract. Normally this circumstance obeys the fact that Dual VET is considered a tool for both requalification and insertion.

■ **AUSTRALIA:** the State Training Authorities (STAs) at regional level and the Australian Apprentice Centres (AAPs) at a federal level are the offices linked to dual VET and work as intermediaries between companies and apprentices and collaborate on the processes and operations necessary.

■ **IRELAND:** the ETB and the public offices of insertion form the bridge between the students and company in order to improve the fit between the supply and demand of dual VET.

■ **BELGIUM:** "Le délégué à la tutelle". It has the role of orienting and helping people who are looking for companies to join in dual modality and as an intermediary with the companies. This figure is often of a sectorial type. They also take charge of the administrative and operative aspects necessary to start a stage of the apprentice in the company and payment of salaries, grants...



Summary of good practices detected

Organisational model of VET	Co-responsibility social agents	Fast Curricular Modification
<ul style="list-style-type: none"> ■ Involvement several ministries ■ VET responsibility of presidency ■ Ad-hoc metropolitan management body: <ul style="list-style-type: none"> ■ ETB Ireland ■ School boards Quebec ■ Bruxelles Formation Belgium ■ Municipalities Finland 	<ul style="list-style-type: none"> ■ Chambers of commerce control contents and final exams. ■ They pass on to administrations needs of modification/extension of training offer linked to all the productive branches. ■ Integration of these in cloisters of the training centres. ■ Local detection of training needs to take into account in modifications / curricular updating. ■ Include them as agents with decision-making power in aspects of training management. ■ Setting salary of the apprentice. ■ Certification of companies that can undertake dual training ■ Validation of modification of the training offer. ■ The social agents can adapt training contracts to specific goals through occasional sectorial agreements in order to develop emerging profiles. 	<ul style="list-style-type: none"> ■ ETB Ireland: annual modification of 10% of the curricular contents without need for express approval of higher administration. ■ Updating of training contents every 5 years. ■ Annual gradual changes in contents based on local needs instead of abrupt reform of the CV ■ Creation of specific committees to develop training of new professions or sectors.
Expert centres to develop CV and contents	Specific centres for apprentices	Orientation reforms
<ul style="list-style-type: none"> ■ BIBB Germany ■ NCEVER Australia ■ KBBS Holland ■ NFSA Finland ■ OBEF of Brussels ■ REU Denmark 	<ul style="list-style-type: none"> ■ Centres de Formation d'Apprentis (CFA) in France ■ Centres d'Education et de formation in alternating form 	<ul style="list-style-type: none"> ■ Reduction in number of centres to favour macro-centres ■ Decentralisation of decision-making towards regions (municipalities or groups of municipalities) ■ Funding centres linked in part to results of insertion ■ Increase study completion rate
Apprentice conditions	Support devices for dualisation	Official accreditation companies
<ul style="list-style-type: none"> ■ Incremental payment taking into account course in progress and age ■ Specific VET Dual contract ■ Training in diverse companies if one alone cannot cover all the training CV ■ No age limit of access to Dual VET. 	<ul style="list-style-type: none"> ■ Finnish regional / local apprentice offices (Oppisopimustoimisto) ■ Swiss cantonal vocational training offices ■ Australian State Training Authorities (STAs) ■ Australian Apprentice Centers (AAPs) ■ Irish ETB ■ Belgian Le délégué à la tutelle 	<ul style="list-style-type: none"> ■ By the chambers of commerce or organisations of the sector such as the Danish national sectorial committees. ■ By the Ministry of Education ■ By a specific service
Incentivación de las empresas		
<ul style="list-style-type: none"> ■ Compensation 25%-30% apprentice salary ■ Specific public funds for incentives of stages in companies ■ Subsidy for each apprentice ■ Subsidy for successful completion ■ Subsidy for taking on specific groups as dual apprentices ■ Administrations can complement apprentice salary ■ Administration assumes 58% of the cost of the dual training in company 		

15. Recommendations for boosting dual VET

Once these cases have been analysed and after studying the different models, some from a more national point of view, others more regional and others with the accent on the local world, from this study we make the following recommendations, while taking into account the competence framework and administrative structure and current resources. The aims of these recommendations are to boost Dual VET in our country and of these, to a greater extent, there is a margin of work for the local and supra-municipal sphere as well as, obviously, regionally.

15.1 Recommendation 1: creation of apprentice / dual VET offices in the territory.

The countries in our setting¹⁷, some for decades, have given resources to the territory of reference in order to support the processes of dualisation. These offices or devices often operate as the sole window for all the actors involved and procedures for dualisation of a route: students, companies and centres.

This resource seems necessary in the here and now, given the dispersion of information and procedures necessary to start up a dual route. On many occasions, the lack of knowledge of the dual option and the current objective difficulties for a company to take on apprentices in their structure are a brake on the incorporation of companies and students into this training modality. Normally this task of information, orientation and support regarding the procedures is done by the different centres and by the teaching staff, which apart from this task do other linked ones such as prospection of companies to take on apprentices in their workplaces.

Ideally this office would have to centralise both the demand for apprentices by the companies and the availability of the students from the centres who want to study a dual training so that, from a regional point of view, can effectively and efficiently combine the offer and demand of Dual VET and all the information and procedures linked to the process of dualisation for all the actors involved. This hypothetical office can also guide and provide information with a sole criteria, a task which currently the centres themselves undertake to a great extent, with a diversity of criteria and uniformity of realities and contexts.

The benefits for the diverse actors involved are the following:

- Students: single point of information and orientation, wide range of options in the region to become learning not only circumscribed to the centre where they study, possibility of processing possible grants and aids.
 - Companies: single window in order to undertake the procedures necessary to incorporate apprentices (agreement/s with centre, registration of students on social security system, help in drawing up the contract, access to teacher training, possible certifications) and sole point of information for everything required.
 - Centres: access to companies from the region of reference that want to take on apprentices, sole window for procedures (agreements with companies) and discharging of management tasks and prospection of companies in the centre.
- Other functions that they could undertake are:
- Strengthening of international mobility of Dual VET
 - Assessment of companies about Dual VET / becoming a training company
 - Possible accreditation of companies for undertaking dual VET
 - Training of company/centre tutors in the dual sphere.
 - Centralisation of the task of prospection and diffusion of Dual VET among industry (attracting companies for Dual VET)
 - Communication actions in centre and students.
 - Identification and diffusion of good practices.

The sphere of these offices makes even more sense from the local or regional point of view. From this point of view these offices can enroot its productive reality of reference and training offer. That is why this recommendation is compatible with municipi-

¹⁷Belgium, Ireland, Finland, Australia, Switzerland

pal spheres referring to cities, county councils, the Greater Barcelona Area, provinces or other municipal spheres, as well as being compatible with an autonomous community network with diverse regional branches.

15.2 Recommendation 2: official accreditation of companies for training

Another important differentiating factor with our settings of reference is the accreditation of the companies in order to be able to undertake training in dual modality. This procedure normally accredits officially, by the ministry, guild or chamber associated with the branch of activity, or another public administration, a company as a training company. The social agents linked to the specific productive branch are normally those who carry more weight in this certification, but the options may be diverse.

This procedure normally accredits the conditions necessary to take on and train apprentices at the level of resources, technology, installations, tutor training, occupational risks, and analyses of functions of the apprentices... This accreditation standardises the quality of the training in the company and contributes to detecting (and solving) non-optimal training situations and situations in which the quality of the training does not achieve the minimums set for this accreditation. The minimums must be set from the sector, with the know-how of the productive reality, but also from the public authorities in order to ensure more formal aspects linked to regulations, standards and common legislation.

15.3 Recommendation 3: specific Dual VET contract

The creation of a specific contractual figure for dual training apprentices could be situated within the measures to undertake medium term given their complexity and articulation from state authorities. This contract should not consider an upper age limit for entry and must consider in the case of the CFGM studies the apprentice can be aged 15 when entering dual training (something not currently considered in the Training and Apprenticeship contract). On the other hand this contract can include other differentiating elements and adapted to the dual system such as a progressive payment linked to the course the apprentice is taking, in this way motivating the student to remain inside the training system and the company being able to adjust/modulate the cost of the dual training to the productive performance of the apprentice during their stay in the company. This contract, ideally, would

have to be the only way of articulating Dual VET and leave behind the double path, based on contract/grant, which produces two dual training routes with highly differentiated conditions and lengths and which could represent a comparative affront between apprentices.

15.4 Recommendation 4: detection devices of the needs of industry

In diverse countries of reference a great effort is made to detect the training needs of the educational system in order to incorporate the different training needs of their region of reference. The aim is to generate attractive training for the companies and thus increase the insertion of the graduates as well as the demand for these types of studies.

In this aspect a prospection task must be promoted, from authorities linked to the region (council, administrations, supra-local...), of detection of these needs, together with the social agents, so that the entities most rooted to the reality of the region (for example a council, county council, Greater Barcelona Area...) can take to the competent authorities these needs based on the information and agreed between the social agents. This task is currently being promoted, for example, from the Vocational Training Councils that different cities and county council boost. This detection and agreement task is often an essential step in order to be able successfully undertake a process with the competent administration in order to generate new training offer or generate flexibility measures that provide a response to the region's needs.

This recommendation also contributes to the availability of apprentices in the centres of reference of industry.

15.5 Recommendation 5: incentives to dualise

Of a permanent nature, transitory or linked to groups, situations or specific professional branches, incentives can be established following the example of many countries and cases of reference covered in this study. This "initial" moment of the Dual, VET system, a good incentives measure could occur to make it more attractive for dual VET companies, centres and students. Below we highlight some, based on the experiences of other countries and cases analysed.

■ Incentives in the companies: as well as the already established social security bonuses, others could be created such as a bonus (economic or of another type) for the companies for each dual route successfully completed, for creating apprentice places in sectors considered



strategic, to take on specific groups such as the long-term unemployed, unemployed over-45s, women, disabled or apprentices with social/economic difficulties. These incentives would boost Dual VET among groups with more difficulties of access than that of half the population in this type of training route and would also enlarge the range of apprentices to join the company.

- Student incentives: we are currently seeing a difference among critical factors in the Dual VET system. If in previous courses a lack of companies to take on apprentices was identified, the tendency today seems to be the opposite and in specific branches the demand for apprentices surpasses the availability of them. Apart from all resources of orientation within the grasp of the apprentices they could have economic incentives, such as salary complements above the IMS or specific grants to motivate this increase in apprentices in those sectors or regions with a lack of offer of apprentices.

- Incentives for centres: economic or of another type. To boost the proactivity of the centres that are still to dualise any of their lines or centres with a training offer linked to those sectors/regions where there is an unsatisfied demand for apprentices in dual. The objective of these incentives would be to join lines and/or dualised students in branches of activity or regions where company places are ensured that develop a dual route and that no company with a vocation to take on apprentices remains without this opportunity due to a lack of offer of available apprentices.



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