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**Apprenticeship Programmes in Greece**

MASTER THESIS

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## **INTRODUCTION**

In this study, my main goal was to present apprenticeship programmes as a social policy method. It begins with a presentation of Vocational learning as a tool for educational attainment and improved labour market outcomes, to conclude that apprenticeship is first and foremost about skills development to the benefit of companies, their employees and the economy in general. The German Dual system of education is presented, on which the Greek apprenticeship system is based. Thereafter the Greek apprenticeship system is presented and analyzed. However, no matter what its benefits are, it would be misguided to see apprenticeship primarily as a cure for high youth unemployment.

In the first chapter, we begin with some main comparative theoretical considerations about apprenticeship and information about apprenticeship types. The differences between formal and informal apprenticeships and the regulations that define each one of them, as well as their ability to develop high level skills identified by employers as necessary for growth and increased productivity are explained. Where the apprenticeship incorporates a formal qualification in the country's qualifications framework, people can progress to higher level qualifications. These qualification based pathways are not related to employment. Completion of an apprenticeship is, in some countries, a precondition for employing or supervising an apprenticeship.

Employee organizations/trade unions play an important role in helping to ensure that apprentices' rights in law are safeguarded. They can play an important part in representing the apprentice's interest in acquiring transferable and general skills in addition to occupational and firm-specific skills in the course of the apprenticeship. Together with employer representatives, employee representatives can actively participate in designing apprenticeship content which serves the interests of both employers and apprentices and which includes general, transferable skills and education. The most basic function of a legal framework for apprenticeship is to define the parameters within which firms may legitimately operate apprenticeship contracts. The legal framework removes uncertainty both for the employer and for the apprentice.

I tried to clarify some practical arrangements, such as the length of training contracts which varies quite considerably. In general terms, countries have ranges which can be small or may be large. Lengths vary significantly across occupations. What is more, regarding governmental and institutional support, it is apparent that government should have the role of a facilitator and regulator, ensuring that social partners act in the interests of the general good. A number of countries report a difficulty in attracting good quality applicants, which is due to the perceived status of apprentices. Small companies in less attractive sectors struggle to find apprentices whilst geographical differences within countries play an important role too.

It is worth mentioning that collective action by employers to define the occupational skills content of apprenticeship and to influence the knowledge elements creates value both for employer and apprentice. National recognition of apprenticeship certification greatly enhances the value of the qualification. However, government, either at national or regional level has an important role to play in the development of apprenticeship. Low educated individuals benefit more from participation in workplace training which has the potential to be a mutually beneficial investment for both employers and employees. Participation in workplace training has the potential to reverse the downward trend and to improve levels of affective job security in the long term for lower-educated individuals.

Lastly, I mention the Youth Guarantee which is an urgent action on youth employment, notably via the implementation of the Youth Guarantee. Through this EU Member States ensure that all young people aged under 25 receive a good-quality offer of employment, continued education, apprenticeship or traineeship. Youth guarantees can be effective in achieving the primary objective of keeping young people connected to the labour market or to continued education thereby preventing them from drifting into long-term unemployment.

In the second chapter we deal with the definition of the German Dual System of Education which combines on-the-job training with theory. By combining practical in-company training with theoretical instruction, students have the chance to acquire two qualifications at once in a large number of study programmes: a vocational training qualification and an academic degree. The most important aspect



of Germany's dual-education system is the close cooperation among the government, private firms, and trade unions.

Moreover, I refer to the Tertiary Level Initial Vocational Education and Training. Dual study programmes combine in-company vocational training with theoretical studies at a university of applied sciences, vocational academy, trade and technical school, university, administration and business academy or since 2009 at a dual university. Dual study programmes are marked by especially high practical work relevance.

As for the employment prospects of the German occupational model, it gives guarantees but the career prospects are slender. Regarding the costs and benefits to apprentices and companies, banks play a major role in allowing the companies to do what is best for them in the long run, thus making it feasible for companies to invest in educating the workforce.

In the third chapter I analyze the Greek case. We contemplate the technical education in Greece and the changes that have happened. I refer to the E.S.S.E.E.K.A, the National System for the Connection of Vocational Education and Training with Employment and I try to present its strategic objectives.

I proceed with apprenticeship supply in Greece, "Mathiteia", which is an alternative to the formal Initial Vocational Education and Training System. A particular reference was made to OAED apprenticeship programmes and the skills that are offered by them, some practical issues regarding teachers and trainees, the labour market demands, and to OAED's apprenticeship schools. The types of both formal and non-formal vocational education and training, as well as the changes that new laws have introduced to apprenticeship system in Greece have been presented too. Lastly, in this chapter we offer a definition of the Job Profiles and their function.

## **CHAPTER 1 Main Theoretical considerations about apprenticeships in the comparative perspective**

The interest in apprenticeship programmes has increased remarkably in recent years. In some Member States of the European Union, new apprenticeship programmes have been introduced or are planned. In some countries, the focus is on increasing the number of apprenticeship placements to match demand. For students, apprenticeships facilitate the school-to-work transition, allowing them to gain highly relevant and marketable skills. Thus young people in countries with dual-system apprenticeship programmes are less likely to experience unemployment. Dual-system apprenticeship programmes, where students spend most of their time in workplace training while also attending formal classes, have multiple benefits. Such arrangements encompass three main participants: the student, the firm, and the government, all of which benefit when an apprenticeship programme is well set up.

Apprenticeships are generally associated with positive labour market outcomes and smooth school-to-work transitions. Higher take-up of apprenticeships is associated with increased youth employment and lower youth unemployment rates. Apprentices achieve better job matches, experience shorter periods of unemployment before finding a first job and spend longer in their first job compared to individuals with low educational attainment or those coming from school-based VET. In most apprenticeship programmes, the majority of apprentices secure employment immediately on completion. There are also wage gains associated with apprenticeships compared to other routes into the labour market, although the comparative advantages enjoyed by former apprentices tend to be higher at the beginning of their careers. Furthermore, the positive effects of apprenticeships on labour market prospects are largely related to the quality of the training provided, its duration, the level of training intensity and the occupational field.

### **1.1 Patterns of Labour Market Policy**

Governments may face strong pressures to deliver policies that are congruent with production regimes and company strategies, but they are also prone to a variety of other pressures that compete for attention, and that may result in changes in the direction of policy. In the German case, while the content of labour market policy in the Former Republic of Germany was derived from the preferences of employers, the stability of policy regimes over time was largely determined by the power of governments to initiate reform or reversals. The presence of institutional guarantees that limited the degree and type of government intervention was central to the logic of supply-side coordination<sup>1</sup>.

The structure of supply-side relations shaped the company strategies that were available to firms in each variety of capitalism. Coordination between firms enabled them to produce high value-added products targeted at specialized export markets, involving highly and flexibly skilled workers. Capital coordination also allowed a strategy of incremental innovation in production to maintain the qualitative advantage of products as technology, skills, and markets change. These strategies were not merely the product of capital coordination over production input but over a range of them. There were a number of interlocking "subsystems of production" that together directed firms towards a quality-based competitive strategy employing incremental innovation. Consequently, coordination, and the company strategies it facilitates, exhibits strong self-reinforcing tendencies<sup>2</sup>.

Where capital coordination is absent, strategies employing supply-side collective goods and incremental innovation are unavailable to firms. Firms are therefore constrained in the sorts of product market strategies they can adopt. Where marketable skills, long term finance, encompassing employer and labour organizations, and investment in technological development are absent, firms are forced to concentrate on products that can be produced at low cost using standardized production methods. These products must compete not on the basis of quality advantages, but primarily in terms of cost advantages. And work organization, rather than emphasizing flexible tasks or teamwork among highly skilled workers, will be

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<sup>1</sup> Hall Peter, Soskice David, *Varieties of Capitalism: The institutional foundations of comparative advantage*, New York (Oxford University Press) 2001, 248

<sup>2</sup> op. cit., 249-250

based upon a more rigid and conventional division of tasks. Where markets rather than non-market coordination determine the type of skills, technology, finance and industrial relations available to companies, cost-based competitive strategies involving more standardized organization of work will be highly resilient<sup>3</sup>.

## **1.2 Vocational learning as a tool for educational attainment and improved labour market outcomes**

One policy area where both emerging and advanced economies converge is the one related to the improvement and expansion of vocational education. Indeed, there is sufficient evidence suggesting that high quality vocational education pathways in upper secondary education can help engage youth who have become disaffected with academic education, improve graduation rates and ensure smooth transitions from school to work. However, in many countries, vocational education accounts for only a small share of enrolled students<sup>4</sup>.

In light of this evidence, many countries, including both emerging and advanced economies, are envisaging reforms to strengthen their vocational education routes in order to improve retention rates of at-risk youth who have disengaged from academic education. In this respect, dual schooling systems combining class-based learning with work-based apprenticeships have received significant attention. This is partly because of the good performance in terms of low youth unemployment in countries with a long tradition of apprenticeship systems along with evidence that apprenticeship training helps make transitions from school to work smoother even for youth who are not subsequently retained by the firm providing the training. Indeed, youth leave apprenticeship programmes with skills that can be immediately used at work with no or little need for further training by their prospective employer<sup>5</sup>.

However, it is important to keep in mind that there is no perfect apprenticeship system or one-size-fits all solution. Even well-established apprenticeship systems face challenges. In the early 2000s, acting on an alarming

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<sup>3</sup> Hall Peter, Soskice David, *Varieties of Capitalism: The institutional foundations of comparative advantage*, New York (Oxford University Press) 2001, 250

<sup>4</sup> Quintini Glenda, Martin Sébastien, *Same Same but Different: School-to-work Transitions in Emerging and Advanced Economies*, OECD Social, Employment and Migration Working Papers, No. 154, (OECD Publishing) 2014, 27

<sup>5</sup> op. cit., 27

drop in the number of apprenticeship places available, the German government initiated talks with the social partners to upgrade the dual vocational education system. The outcome was a National Pact for Training and Young Skilled Staff signed in June 2004, committing employers to offering sufficient apprenticeship places over the following three years and the government to reshaping the apprenticeship framework to pay more attention to employers' training needs and to adapt to new skill requirements and work organization practices<sup>6</sup>.

The contribution of apprenticeship to jobs and skills has long been appreciated by countries eager to promote growth and ease the transition from full-time education to work for young people. While a positive relationship between apprenticeship and low youth unemployment can be observed over time, it would be misguided to see apprenticeship primarily as a "cure" for high youth unemployment. Apprenticeship is first and foremost about skill development to the benefit of companies, their employees and the wider economy. It can accommodate a wide range of abilities and aptitudes because it accurately reflects the equally wide range of skills required in a modern economy. However, it is not a sufficient solution to improving the labour market transition of young people with poor school achievements or other disadvantages<sup>7</sup>.

In 1962, ILO gave a new definition to apprenticeship, different from what it was defined as until then. The new definition was "Systematic long-term training for a recognized occupation taking place substantially within an undertaking or under an independent craftsman should be governed by a written contract of apprenticeship and be subject to established standards". A more recent definition in a paper authored by German, Swiss and British academics again adds more attributes to the definition "Apprenticeship is taken to denote training programmes that combine vocational education with work-based learning for an intermediate occupational skill (i.e., more than reutilized job training), and that are subject to externally imposed training standards, particularly for their workplace component"<sup>8</sup>.

### **1.3 Types of apprenticeships**

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<sup>6</sup> Quintini Glenda, Martin Sébastien, *Same Same but Different: School-to-work Transitions in Emerging and Advanced Economies*, OECD Social, Employment and Migration Working Papers, No. 154, (OECD Publishing) 2014, 27

<sup>7</sup> Steedman Hilary, Overview of apprenticeship systems and issues, Geneva (ILO) November 2012, 1

<sup>8</sup> op. cit., 3

In countries that have well-established formal apprenticeships systems, such as Germany, the range of jobs covered by apprenticeships covers the "traditional trades", with a concerted effort being made to expand the systems to include newly-emerging jobs in a global market. The majority of the latter apprenticeships are in non-professional jobs although in some countries, apprenticeships have been created in industries such as management and aeronautics with the intention of creating apprenticeships for airline pilots, as an example<sup>9</sup>.

Apprenticeship in the informal economy is a widespread phenomenon. In order to pass on skills from one generation to the next, poor societies have developed informal apprenticeship systems that are purely workplace-based. A young apprentice learns by observing and imitating an experienced master craftsman, acquires the skills of the trade and is inducted into the culture and networks of the business. Apprenticeship agreements are mostly oral, yet they are embedded in the society's customs, norms and traditions. Countries in mediaeval Europe developed strong apprenticeship systems regulated by crafts associations, the guilds. Today, informal apprenticeship is an extensive training system in countries with large informal economies all over the world. Variations in terms of practices are wide, yet the basic feature remains the same: the training agreement between a young learner and an experienced craftsman to transmit the skills of a trade<sup>10</sup>.

Informal apprenticeship has a number of weaknesses. Long working hours, unsafe working conditions, low or no allowances or wages, little or no social protection in case of illness or accident, and strong gender imbalances are among the decent work deficits often found in apprenticeships. On the one hand, upgrading informal apprenticeship is considered important to address these weaknesses. On the other hand, compared to investing in expanding formal technical education and training, it is a cost-effective way to invest in a country's skills base and enhance employability of youth, since training is integrated into the production process. Improved informal apprenticeship systems can also dynamize local economies by

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<sup>9</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 5

<sup>10</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 4

contributing to the diversification of products and services and the innovation, productivity and adaptability of micro and small enterprises<sup>11</sup>.

Informal apprenticeship systems exist in less developed countries where the existence of it is the result of the multiplicity of micro, small and medium-sized businesses covering every trade. In these informal apprenticeships employers employ younger workers, sometimes for only very short periods of time, and train them on the job to do very specific tasks that are not necessarily expected to be transferable to other work contexts. These informal apprenticeships are not regulated, and the apprentices generally do not receive any kind of certification. It is also the case that informal and formal apprenticeships can exist side by side, although in these countries the formal systems have far fewer participants<sup>12</sup>.

Compared to other workplace based programmes, "formal" apprenticeship is structured and regulated, usually by legislation at national level, is waged, is based in the workplace, based on a contract which specifies duration, programme of learning (including transferable skills) assessment and final certification and the entitlement to off-the-job learning. In some countries women are under-represented because some of the occupations they choose require full-time vocational schooling (Germany) or because their preferred occupations are not offered in apprenticeship. Considerable effort has been made in many countries to attract young women to apprenticeship occupations more frequently chosen by young men but, as yet, these efforts have made little impact on gendered choice of occupation. The dual-system countries (in which planned learning takes place in two locations: the employer's premises and the vocational school) have a large apprenticeship offer which helps to satisfy these countries' skill needs, although not all who seek an apprenticeship manage to find an employer<sup>13</sup>.

Apprenticeship is one of the oldest social institutions but "modern" apprenticeship has ambitious aims – to enhance general education and to develop technical knowledge and skills to internationally competitive standards. Its

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<sup>11</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 4

<sup>12</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 6

<sup>13</sup> Steedman Hilary, *op. cit.*, 5-6

implementation in complex modern labour markets requires high levels of trust and cooperative behavior between public authorities, employers and the young person<sup>14</sup>.

In countries with well-established apprenticeship, the institution of apprenticeship is hardly contested between the political parties. Instead, a growing cross-party consensus can be detected that apprenticeship is desirable and should be supported by public funds. The current severe difficulties experienced by young people entering the labour market has helped to develop this consensus since all available evidence shows higher employment probabilities for young people with completed apprenticeship. Democratically elected governments will be under pressure to promote measures such as apprenticeship which provide good employment prospects for young people<sup>15</sup>.

Apprenticeships benefit society and the economy by much more than just improving employment prospects for young people. Apprenticeships match the supply of skills with demand from employers much more efficiently than is possible with a system of school-based full-time vocational education. They develop high level skills identified by employers as necessary for growth and increased productivity. To the extent that skills developed in apprenticeship promote higher value-added economic activity they are good for growth and for general welfare. The higher earnings associated with higher productivity provide higher tax take which governments can use for health, education and other general welfare measures<sup>16</sup>.

Apprenticeship operates within the wider context of cultural traditions and aspirations of individuals and the complexity of labour market regulation. Straight transplantation of institutions from one cultural context to another without regard to these factors has long been condemned as naive and likely to be unsuccessful. However, policy which identifies more universal characteristics underpinning successful systems, for example, incentives to participation, management of equity issues, overcoming market failure, can provide a valuable guide to policy makers seeking to build or expand a viable apprenticeship offer<sup>17</sup>.

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<sup>14</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 8

<sup>15</sup> op. cit., 9

<sup>16</sup> op. cit., 9

<sup>17</sup> op. cit., 10



Most of the policy shove across countries can be summarized in the following list:

- Increasing participation of employers.
- Increasing participation of individuals, including targeting specific learner groups e.g. women, ethnic minorities.
- Aligning with national and/or international qualifications frameworks.
- Addressing youth unemployment with specifically youth-targeted initiatives under the umbrella of apprenticeships.
- Increasing the range of 'apprenticeable' occupations.
- Harmonization across State or Provincial boundaries<sup>18</sup>.

In addition there have been other developments, such as targeting of specific occupations and/or geographical areas; attempts to increase the reach of apprenticeships into the informal economy; and attempts to improve movement to higher education programmes. The least developed countries have introduced ideas from more developed countries and struggle to sustain these without donor funding. It is also reported that imported systems are not necessarily ideal for the individual country. A problem seen in some countries, is that apprenticeship, and VET in general, has a low status compared with higher education. In these countries there is preference by individuals to undertake higher education. In other countries, particularly Germany, VET has a higher status<sup>19</sup>.

#### **1.4 Pathways into and out of apprenticeships**

There are sometimes relationships between apprenticeships and secondary schooling. In Germany the dual system is in fact part of secondary schooling. In most countries, apprenticeship is seen as something that happens after secondary schooling. In general, apprenticeships are open to anyone (subject to getting a job where apprenticeships are employment-based), although there is sometimes a requirement for school-leaving certificates. Countries that have higher levels of apprenticeship have additional educational requirements. In countries where adult apprenticeship is

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<sup>18</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 6

<sup>19</sup> op. cit., 6

routine, there are normally no entry requirements for these. In some cases, schemes are in place to prepare people for apprenticeships. In Germany they are called "schoolbased" or "pre-vocational" programmes. These types of programmes may be aimed at disadvantaged people or may be instituted simply to try to improve recruitment into apprenticeships, allowing a portion of the training to be completed at a training provider, with, ideally, subsequent entry into a formal apprenticeship<sup>20</sup>.

Where the apprenticeship incorporates a formal qualification in the country's qualifications framework, people can progress to higher level qualifications. This is the case, for example, in Germany, although articulation pathways are more common in some occupational areas than others; in Germany the pathway is common in engineering. These qualification based pathways are not related to employment. Higher education need not be something that happens after an apprenticeship. In France apprenticeships can include a higher education qualification and 'higher apprenticeships' are also a relatively new feature in England. Completion of an apprenticeship is, in some countries, a precondition for employing or supervising an apprenticeship. In some countries, e.g. Germany, it is expected that some apprentices will progress to senior management positions in companies<sup>21</sup>.

### **1.5 Legal basis and Types of Legislative and Administrative Frameworks**

In modern economies apprenticeship is normally regulated by law. A standard format relieves firms of the burden of individually negotiating each contract and provides each party with a clear statement of rights and responsibilities with redress for failure to observe the apprenticeship contract. Germany, Austria, Denmark, England, Ireland, the Netherlands and Switzerland regulate apprenticeship through an Act of Parliament. For example, in Germany the 1969 Vocational Training Act specifies the length of apprentice training and the examinations to be carried out by chambers of commerce to test workplace learning, and obliges employers to release apprentices to undergo these tests. It requires employer and sector representatives to draw up a specification of workplace learning for every recognized apprentice occupation, with the proviso that the framework promotes transferable skills and knowledge within an

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<sup>20</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 7

<sup>21</sup> op. cit., 7

occupational context. The Act places vocational training in the hands of firms and chambers and thus emphasizes the principle of employer responsibility for content while defining the basic framework guaranteeing mutual rights and obligations of employers and apprentices<sup>22</sup>.

Legislation should recognize the unique status of the apprentice as learner and secure the right to high quality training with strong transferable elements; set out the right of apprentices to a training allowance commensurate with their productive contribution net of training costs; set a minimum duration for the apprenticeship and secure provision for career progression; exempt young apprentices from minimum wage legislation and set a separate minimum wage for young apprentices. Legislation should be coherent and aim for a simple but effective framework<sup>23</sup>.

Apprenticeship is strongest in countries where both employer and employee representative organizations wholeheartedly support and promote apprenticeship and the conditions necessary for its success. Ongoing social dialogue is the necessary prerequisite for this commitment. Employers are the key to apprenticeship opportunities and the most important players in the apprenticeship arena. Based on their assessment of present and future skill needs they recruit a young person and both then freely enter into a contract which sets out respective rights and responsibilities. Both young people and employers are encouraged to engage with apprenticeship if the right incentives and safeguards are in place<sup>24</sup>.

Employee organizations/trade unions play an important role in helping to ensure that apprentices' rights in law are safeguarded. In many countries they contribute to the management of successful apprenticeship systems. Their principal interest is the protection of the interests of all employees, including apprentices. An apprenticeship contract enforceable in law is a fundamental condition of the protection of apprentices' interests. In most apprentice countries this contract provides apprentices with a special "trainee" or "learner" status which emphasizes their dual role in the workplace both as learner and worker. Apprentices also enjoy the full protection of health and safety at work legislation as appropriate for their age.

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<sup>22</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 10-11

<sup>23</sup> op. cit., 11

<sup>24</sup> op. cit., 12

A trial period of several weeks is often incorporated to allow either the apprentice or the employer to end the contract without penalty if either party so wishes. After this trial period, as long as the apprentice fulfils the requirements of the apprenticeship contract and while the business remains solvent, the contract cannot be terminated prematurely by the employer. Following the completion of the apprenticeship, both apprentice and employer are normally free to decide whether to agree to enter into an employment relationship<sup>25</sup>.

Existing employees and apprentices suffer when apprentices are used as full substitutes for those already employed since this can lead to downward pressure on employees' wages. Apprentices are equally disadvantaged by such practices since they fail to acquire a broad range of skills and may be dismissed altogether at the end of the apprenticeship. In most established apprenticeship systems the danger of exploitation of apprentice labour has been lessened by regulation and legislation - often promoted and sponsored by employee organizations. Employee organizations/trade unions can play an important part in representing the apprentice's interest in acquiring transferable and general skills in addition to occupational and firm-specific skills in the course of the apprenticeship<sup>26</sup>.

Employers might consider final certification a low priority since a nationally recognized qualification increases the likelihood that the investment in the apprentice might be lost if the qualified apprentice leaves for another company. Employee organizations/trade unions can press for nationally recognized certification to be awarded on successful completion of apprenticeship. Together with employer representatives employee representatives can play an important role in designing apprenticeship content which serves the interests of both parties – employers and apprentices and which includes general, transferable skills and education. Genuine employer engagement is not secured simply through employer representation on official bodies set up by government. Many countries with relatively under-developed apprenticeship systems require employer representation on bodies that

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<sup>25</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 12

<sup>26</sup> *op. cit.*, 12

regulate apprenticeship. However, successful employer engagement, needs commitment of time and resources at all levels of apprenticeship management<sup>27</sup>.

Every country reports complex regulatory, administrative and legal frameworks. Often responsibility for apprenticeship is shared among different ministries, typically a Ministry of Labour or Manpower, and a Ministry of Education, and very often there are differences among states, provinces or other regional jurisdictions. In Germany, responsibility is shared between the national government and the Federal States. National harmonization is a feature of some recent attempts at reforms, so that stakeholders can be assured of equivalent competency of "graduating" apprentices and so that apprentices and apprentice graduates can move freely within national borders to practise their occupation. In countries where differences remain, one way of dealing with the problem is at least to provide stakeholders, including potential apprentices, with accurate data on the different jurisdictions<sup>28</sup>.

There is generally an Apprentice Act or part of a broader labour code, at the national level, that sets the framework for the system. It makes regulatory arrangements for length of contact, employment, and may register apprenticeship occupations. Typically, national bodies manage the occupational standards (e.g. Skills Councils), the qualifications frameworks, and sometimes trades tests, if there are any. Sometimes the arrangements in national Acts and bodies are apprenticeship-specific and sometimes arrangements are shared with other parts of the VET system<sup>29</sup>.

Regulation of the apprenticeship contract by national law can be an important step in strengthening apprenticeship. However, consultation with the social partners and TVET education authorities should precede legislation. The most basic function of a legal framework for apprenticeship is to define the parameters within which firms may legitimately operate apprenticeship contracts. It needs to clearly specify the status, rights and obligations of apprentices and employers. The legal framework removes uncertainty both for the employer and for the apprentice as to whether the

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<sup>27</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 13

<sup>28</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 11

<sup>29</sup> *op. cit.*, 12

contract they have entered into will be respected and upheld in law. Removing uncertainty lowers the transaction costs of apprenticeship both for employers and for apprentices<sup>30</sup>.

### **1.6 Practical Arrangements: Employment status and Training Providers**

In almost all countries, apprentices are formally employed. In other words, a person cannot become an apprentice unless he or she has gained a job from an employer. Thus the system depends on employers being willing to offer jobs. There may be minimum working-hours provisions<sup>31</sup>.

A training provider or school is involved in almost all cases. Generally training can be undertaken at a public training provider funded by the government or at a range of other training providers. Countries with apprenticeships in their higher education system involve training at a university. In some countries there were reported issues associated with the quality of training at some training providers; quality issues were associated with both public and private providers. Usually, apprentices are released from their jobs to attend sessions with the training provider, and typically this is for one day a week or equivalent time in block periods. In many cases the period for which off-the-job training runs is less than the term of the apprenticeship. In some countries training is allowed in some cases to be almost entirely on the job, although a training provider must oversee the formal training. Generally the latter arrangements are viewed as somewhat problematic<sup>32</sup>.

#### **1.6.1 Length of Training Contract**

The length of training contracts varies quite considerably. Generally countries have ranges. Ranges can be small (e.g. 2-3 years in Germany) or may be large (6 months-4 years). Lengths vary significantly across occupations. In some countries longer periods of 3-4 years apply for "traditional trades" (construction and manufacturing) while shorter periods apply for service industries such as aged care. Shorter-term apprenticeships are sometimes criticized in these countries. In some countries

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<sup>30</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 22

<sup>31</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 10

<sup>32</sup> op. cit., 10-11

apprenticeships can be shortened if the apprentice has completed all required learning. The normal range across countries is between 1 and 4 years<sup>33</sup>.

### **1.7 Attractiveness to Applicants**

The relative attractiveness of apprenticeships to applicants varies across the countries and within the countries. In some instances the strong 'culture' that has developed in some industries means that these apprenticeships are seen to be more "attractive" to potential applicants. This culture is bound up with the age and history of the industry, and its status within the society<sup>34</sup>.

A number of countries report a difficulty in attracting good quality applicants. This is the case in Turkey; the perceived status of apprenticed occupations is low and there are ways to bypass the existing legal requirements of the apprenticeship system. In Turkey the lack of attractiveness of apprenticeships is compounded by the fact that entrants tend to come from the lower socioeconomic groups, frequently are early school leavers, or have lower aspirations for further education and training. In contrast, Germany, with its very old traditions of apprentice training and its extensive legislative protections of both the employers and the apprentices, is regarded as offering attractive apprenticeships to its entrants, although the true picture is more complex, being heavily sector-dependent with marked differences between industry, crafts and trade apprenticeships. Large companies have hundreds of applications for places, but small companies in less attractive sectors (e.g. butchers or waiters) struggle to find apprentices. There are also geographical differences within countries in the ease with which companies can attract applicants or with which applicants can secure positions<sup>35</sup>.

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<sup>33</sup> Smith Erica, Kemmis Ros Brennan, *Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems*, (ILO) 2013, 11

<sup>34</sup> op. cit., 8

<sup>35</sup> op. cit., 8

### 1.7.1 Apprenticeship and Job security

Study results confirm a positive effect of workplace training on job security both in the short term and in the long term. Low educated individuals benefit more from participation in workplace training. The immediate effect on subjective job security is strongest, and the post-training effect is most sustained for this group compared to those with higher levels of education. Lower-educated employees often lack access to workplace training, however. Workplace training has the potential to be a mutually beneficial investment for both employers and employees. More targeted policy incentives should aim at enhancing access to workplace training, most importantly for the low educated, as for them training might be an effective means for improved employment prospects<sup>36</sup>.

A high level of subjective job security is an important determinant of a number of positive life outcomes and is therefore a major policy objective. Differences in economic and labour market conditions but also individual determinants such as educational levels and participation in workplace training are powerful predictors of perceived job security. Subjective job security has been identified as a central feature of job security. Borg and Elizur, for instance, formulated a definition of job security that stresses the importance of subjective fears of job loss, differentiating between cognitive job insecurity (the estimated probability of losing one's job) and affective job insecurity (fears that come from the thought of losing one's job)<sup>37</sup>.

The concept of affective job insecurity encompasses a variety of aspects. According to Greenhalgh and Rosenblatt, one can distinguish between the "fear to lose the job and the fear to lose specific and particularly valued characteristics of the existing job". These theoretical considerations illustrate that affective job insecurity is multidimensional. All the different dimensions of affective job insecurity relate to feelings of powerlessness and fears of job loss, however, which are best captured by the following definition: job insecurity is "the discrepancy between the security a person experiences and the level she or he would prefer"<sup>38</sup>.

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<sup>36</sup> Kohlrausch Bettina, Rasner Anika, *Workplace training in Germany and its impact on subjective job security: Short- or long-term returns?*, Journal of European Social Policy, 2014, 337

<sup>37</sup> op. cit., 337-338

<sup>38</sup> op. cit., 339



The effects of subjective job security are not only short term, but often affect longer periods of people's careers and life courses. Individuals with fewer job concerns are more satisfied – not only with their employment situation but also with life in general. Feelings of job insecurity are influenced by institutional arrangements and economic conditions as well as individual characteristics: highly educated and non-manufacturing workers as well as men, relative to women, fear job loss less. Individual fears of job loss are correlated with, although not determined by, social status and labour market position<sup>39</sup>.

Education is an effective means of empowering individuals. Following this line of thought, workplace training should be an instrument to make employees feel more secure. After the school-to-work transition, workplace training is one means for employees to invest in their human capital and their job-specific skills. If, on the one hand, education succeeds in contributing to increased control and empowerment, and, on the other hand, if it signals the value attributed to an employee's work, then workplace training might positively affect the employee's subjective job security. The returns depend on the particular aspects of the training (e.g. type of training and labour market position) and on ascriptive characteristics (e.g. age and race). The benefits of workplace training are influenced primarily by the education level of participants, whereas it is unclear whether higher- or lower-qualified people benefit to a greater extent. Wolter and Schiener (2009) showed that wage effects are higher for employees with a lower secondary degree than for those with a medium or higher degree<sup>40</sup>.

Subjective job security serves as an explanatory variable for higher levels of life satisfaction or well-being. Workplace training mitigates labour market risks, but it remains vague whether workplace training also leads to increased affective job security. Participation in training has a stabilizing long-term effect on employment careers. One could assume that workplace training has positive short-term and long-term outcomes on affective job security as well. In the highly stratified German labour market, access to workplace training is limited for lower educated people. We therefore argue that the possibility to participate in workplace training would reduce

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<sup>39</sup> Kohlrausch B., Rasner A., Workplace training in Germany and its impact on subjective job security: Short- or long-term returns?, *Journal of European Social Policy*, vol. 24, October 2014, 339

<sup>40</sup> *op. cit.*, 339-340

fears of job loss more for those starting in a disadvantageous labour market position than for higher-educated people. Hence, the marginal returns to workplace training might be higher for this group when compared to high-educated individuals<sup>41</sup>.

Participation in workplace training has the potential to reverse the downward trend and to improve levels of affective job security in the long term for lower-educated individuals. In other words, if individuals who can be considered labour market outsiders are given access to workplace training, they are able to achieve higher levels of affective job security than training participants with higher educational attainment. Lower-educated individuals benefit to a greater extent from workplace training than higher-educated individuals in terms of affective job security. The group with the highest educational attainment benefits the least from participation in workplace training when it comes to the level of affective job security. Individuals of all educational levels benefit from the participation in workplace training but low educated individuals gain most. Workplace training not only matters in the short term but also has a sustained positive impact on affective job security. In times of economic uncertainties, workplace training has the potential to mitigate labour market insecurities, especially for those employees in the presumably weakest labour market position<sup>42</sup>.

### **1.8 Employers' associations, trade unions and governments**

The experience of many countries currently developing apprenticeship demonstrates that strong, regional and/or sector-based employer associations need to be developed alongside apprenticeship provision. Collective action by employers to define the occupational skills content of apprenticeship and to influence the knowledge elements creates value both for employer and apprentice. The employer acquires relevant skills and the apprentice acquires a qualification with a real labour market value. If the apprentice is assured - through officially recognized certification - of an outcome that will bring increased earnings, employment and career possibilities he/she is more likely to accept a lower wage for the duration of the apprenticeship. This in turn helps employers to achieve a sustainable balance between apprenticeship

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<sup>41</sup> Kohlrausch B., Rasner A., Workplace training in Germany and its impact on subjective job security: Short- or long-term returns?, *Journal of European Social Policy*, vol. 24, October 2014, 340-341

<sup>42</sup> *op. cit.*, 347

costs and benefits. The status of apprenticeship will rise and attract well-qualified applicants. Trade unions play a vital role in achieving this balance by negotiating apprentice pay levels below those of fully-skilled workers while at the same time insisting on high quality training with substantial elements of transferable skills and knowledge<sup>43</sup>.

National recognition of apprenticeship certification greatly enhances the value of the qualification. However, over-rigid national skill specification can inhibit the development of apprenticeship in its early stages. Recognition within a region or sector of economic activity can provide the flexibility needed for apprenticeship to flourish and grow. Government, either at national or regional level has an important role to play in the development of apprenticeship. Essentially, it needs to play the role of facilitator, bringing together the social partners and the education constituency, and promoting an efficient flow of information to all the parties involved. It acts in the public interest by encouraging employers and apprentices to invest in skills. It must then, evaluate and adjust the incentives to both parties to participate in apprenticeship when economic and/or social change affects the cost/benefit equilibrium that promotes the optimal level of skill production through apprenticeship. Subsidies from public funds to employers and/or apprentices can help to reduce the uncertainty that surrounds the apprenticeship contract for both parties. These have proved to be necessary in times of cyclical downturns in the economy when the supply of apprentice places is reduced<sup>44</sup>.

Governments should not seek to micro-manage apprenticeship. This can lead to the exclusion of employers from important decisions and an overload of form-filling and bureaucratic controls in order to comply with government regulations. Government should have the role of a facilitator and regulator, ensuring that social partners act in the interests of the general good. While organized employers are the actors of crucial importance with respect to the survival of strong plant based training, the state plays a critical role in facilitating coordination among them<sup>45</sup>.

In a number of apprentice countries institutional support is provided by an organization that provides labour market intelligence on changing skill needs,

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<sup>43</sup> Steedman Hilary, *Overview of apprenticeship systems and issues*, ILO, 2014, 22

<sup>44</sup> op. cit., 22-23

<sup>45</sup> op. cit., 14

collects and monitors statistical information and provides support to employers' organizations updating or devising new training programmes. This support provides early warning of problems and challenges arising in apprenticeship provision and advises government on intervention where required. The definition of apprenticeship requires that much of the training is provided in the workplace. The quality of workplace training depends on the quality of the trainers based in the apprenticeship firm. Workplace trainers themselves need training for this role and most apprentice countries provide national certification and training programmes that can be accessed part-time while in employment<sup>46</sup>.

### **1.9 The Youth Guarantee**

In the context of an ongoing economic crisis and significant austerity measures, European policy-makers have demanded urgent action on youth employment, notably via the implementation of the Youth Guarantee, through which EU Member States commit to ensuring that all young people aged under 25 receive a good-quality offer of employment, continued education, apprenticeship or traineeship within four months of becoming unemployed or leaving formal education. Many Member States of the European Union have taken steps to turn the European call into reality both at the national and local level, especially since EU funding is targeted on regions where youth unemployment exceeds 25 per cent.

The Youth Guarantee represents a comprehensive approach to address youth unemployment and inactivity and to improve school-to-work transitions through prevention, outreach and partnership. In order to establish the readiness of Member States to deliver the European Youth Guarantee, several organizations (notably the ILO, the Eurofound and the OECD's DELSA division) have already started examining cross-national experiences of Youth Active Labour Market Policies (ALMPs)<sup>47</sup>.

Since 2012, European policy-makers have called for urgent action to respond to rising levels of youth unemployment and to help young people not in education

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<sup>46</sup> Steedman Hilary, *Overview of apprenticeship systems and issues: ILO contribution to the G20 task force on employment*, Geneva (ILO) 2014, 15

<sup>47</sup> Organisation for Economic Co-operation and Development - OECD, *The local implementation of Youth Guarantees: Emerging lessons from European experiences*, October 2014, 13

employment or training to make the transition into work. Youth guarantees can be effective in achieving the primary objective of keeping young people connected to the labour market or to continued education thereby preventing them from drifting into long-term unemployment. While all the options offered within the youth guarantee draw from the classic activation “catalogue”, countries tend to display clear preferences. For instance, Germany has focused particularly on apprenticeships.

A Youth Guarantee is not a panacea against youth unemployment. However, it does encourage immediate action by public employment services designed to prevent young people from becoming disaffected and inactive in the first place. Most countries are currently designing their Youth Guarantee Plans while also implementing several measures to combat the high level of youth unemployment and prevent its rise. In some cases, these measures are explicitly linked to a future development of national Youth Guarantees.

At the European level the European Trade Union Confederation is supporting the Youth Guarantee, and most trade unions in different member states have already publicly expressed their support to this initiative. However, in some countries trade unions denounce the lack of involvement of social partners and stakeholders, the absence of transparent consultations with the social partners and also the lack of political will when it comes to tackling youth unemployment. There are concerns about the prospect of European Social Funds being reallocated for this purpose, in view of the possible consequences of such reallocation for other existing programmes, as well as about the sole reliance on European funds for tackling youth unemployment. In some countries where measures similar to the Youth Guarantee are already in force, trade unions warn about the inefficiency of some of the measures, suggest changes to the funding of the schemes or invite strengthening of some of their aspects<sup>48</sup>.

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<sup>48</sup>Bussi Margherita, Geyer Leonard, *Youth Guarantees and recent developments on measures against youth unemployment*, Brussels (European Trade Union Institute) 2013, 6

## CHAPTER 2 The German Case

### 2.1 Defining the German Dual System of Education

German students are separated into different tracks at age 10, when their parents place them into one of three levels of secondary education: Hauptschule, Realschule, and Gymnasia. The lowest level, Hauptschule, is designed for students who plan to begin apprenticeship programmes starting at age 16. Similarly, the Realschule focuses attention on providing students with the skills necessary for an apprenticeship, though it provides slightly more advanced academic theory than the Hauptschule. Students who plan to attend universities generally attend Gymnasia, the highest level of the secondary educational system. Upon graduating from Gymnasia, students receive a university entry certificate, known as an Abitur<sup>49</sup>.

Apprenticeships in Germany are governed by national legislation known as the 2005 Law on Vocational Education and Training, which is a revised version of the 1969 Vocational Training Act. This law ensures standardization of the content of apprenticeships. It defines the various occupations in which apprentices can participate, more than 300 in total, and provides general guidelines for what an apprentice is expected to learn in each occupation. These descriptions of vocational occupations, called vocational profiles, then serve as a blueprint for designing exit exams and curricula. Such profiles allow the government to regulate what apprentices will learn as part of their training and ensure that a student who successfully completes an apprenticeship has received broad and valuable training that can then be applied in other companies. Firms, however, maintain a strong degree of independence in designing the on-the-job training programmes<sup>50</sup>.

In 1989, 75% of young Germans between the ages of 15 and 25 underwent initial training as apprentices. While participation has traditionally remained this high since the Vocational Training Act of 1969, the most recent trend has seen an increase in the percentage of apprentices who had an Abitur. Currently, 20% of Abitur recipients serve as apprentices following their pursuit of higher education to enhance

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<sup>49</sup>Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 1-2

<sup>50</sup>Aivazova Natalia, *Role of apprenticeships in combating youth unemployment in Europe and the United States*, Peterson Institute for International Economics, August 2013, 9

their job opportunities in industry. Of all apprentices in 1989, 14% had an Abitur, 32% had graduated from a Realschule, while 35% were products of a Hauptschule. At all levels, though, there is a strong incentive for highschool students to do well in competition for the best apprenticeships. As a result, German students who do not continue into higher education generally gain more knowledge through high school classes than do students from the United Kingdom for instance who do not plan on attending college<sup>51</sup>.

Apprentices usually begin training between the ages of 16 and 19, and the training periods generally last three to four years. The apprenticeship is actually a legal contract between the employer and the apprentice, with the first three months serving as a probationary period. Because of rigid laws established by labour organizations, however, it is difficult for the company to terminate apprenticeship agreements even during the first three months. The two major sectors providing apprentice programmes include the Industrial/Commercial sector, which accounted for one-half of the apprentices trained in 1989, and the Handwerk sector (or the craft/artisinal sector), which trained 34.3% of all apprentices that year. Other apprentices can be found in the agriculture and civil service sectors, and some work on "free projects," which are not associated with any of the traditional sectors<sup>52</sup>.

The large number of vocational profiles in Germany is one of the defining characteristics of the German apprenticeship model and provides apprentices with a wide range of occupations in which they can be certified. The 2005 law also establishes standard lengths of apprenticeships (24, 36, or 48 months) in various sectors and allows for a one- to four month initial probation period during which the apprentice contract can be broken. The legislation is implemented at the national level by the Federal Institute for Vocational Education and Training, which is under the supervision of the Ministry of Education<sup>53</sup>.

The German apprenticeship system is commonly referred to as "the dual system of education" as it combines on-the-job training with theory taught in public schools one or two days per week. Larger companies typically possess their own in-

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<sup>51</sup>Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 2

<sup>52</sup>op. cit., 2

<sup>53</sup>Aivazova Natalia, *Role of apprenticeships in combating youth unemployment in Europe and the United States*, Peterson Institute for International Economics, August 2013, 9

company training shops, but smaller companies provide practical training in group training centers shared by several companies. Companies that provide training programmes employ 70% of Germany's entire workforce. Legal requirements govern the material that is taught to students in public schools. Following the prescribed length of the apprenticeship, students are given standardized external exams that test theoretical and practical knowledge. If a student passes the exam (as about 90% do), he/she is given a skilled worker's certificate. This certificate is nearly essential for a worker to obtain full-time employment; between 1985 and 1989, only about one-quarter of West Germany's workforce did not have any vocational qualifications<sup>54</sup>.

Training takes place on the basis of a private-law vocational training contract between a training enterprise and a young person. The apprentice is trained in an enterprise for 3 to 4 days a week and in the vocational school for up to 2 days a week. Programmes normally last 3 years (some occupations only require 2 years). Work-based training places are usually offered in both private and public enterprises, where the suitability of training enterprises and in-company training personnel is monitored by the relevant autonomous industrial bodies (Chambers). The professional competences in occupations to be acquired in in-company training are specified in a training regulation and included by the training enterprise in an individual training plan. Concerning the tertiary VET level, Dual study programmes combine in-company vocational training with theoretical studies. By combining practical in-company training with theoretical instruction, students have the chance to acquire two qualifications at once in a large number of study programmes: a vocational training qualification and an academic degree. Dual courses of study are an especially innovative, attractive and practical way of studying that has enjoyed increasing popularity<sup>55</sup>.

On the other hand, it must be stressed that Germany's labour market is closely intertwined with the apprenticeship-place market. Therefore, and as a consequence of the economic crisis, several measures have been put into practice in order to increase the number of apprenticeship places. Also, the Federal Ministry of

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<sup>54</sup>Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 2

<sup>55</sup>European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 34



Education and Research (BMBF) has financed various programmes designed to create additional places and to improve in-company training conditions. An example of this is "JOBSTARTER - *Für die Zukunft ausbil-den*" (training for the future)<sup>56</sup>.

Perhaps the most important aspect of Germany's dual-education system is the close cooperation among the government, private firms, and trade unions. This is the hallmark of the German apprenticeship system and its most valuable policy insight. At the national level, employers, trade unions, and the federal government cooperate in the Federal Institute for Vocational Education and Training to set wages and develop apprenticeship standards. Apprentices have a unique status as student-workers. While dual apprenticeship models encourage paying the apprentice for his/her labour, the wage is only a fraction (often one-third or one-half) of a regular employee in the sector<sup>57</sup>.

At the state level, firms, trade unions, chambers of commerce, and the state government cooperate to develop a curriculum for in-classroom instruction and oversee the implementation and content of final examinations. Furthermore, firms and other institutions cooperate to organize logistics, such as places of instruction. This can be particularly complicated in sectors such as construction, where the location of on-the-job training shifts frequently. What is more, firms have autonomy and flexibility in designing their workplace training programmes, as long as the training provided fits into one of the vocational profiles outlined at the national level and prepares the apprentice to pass his/her final exams and receive the national qualification in that vocational profile. Autonomy in designing the on-the-job curriculum is often an important precondition for firm participation<sup>58</sup>.

This highly successful dual system relies on the support of many organizations outside of the private companies. Employer associations, on both sectoral and local levels, play a major role in developing new apprenticeships, in modifying existing ones, and in advising the larger companies offering apprenticeships. The Industrial/Commercial and Handwerk chambers organize the

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<sup>56</sup>European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 35

<sup>57</sup>Aivazova Natalia, *Role of apprenticeships in combating youth unemployment in Europe and the United States*, Peterson Institute for International Economics, August 2013, 9

<sup>58</sup>op. cit., 9

local apprenticeship systems, approve and monitor company training, and administer the exam system. Other support is given by: industrial unions, which generally support the goals of the sectoral associations and chambers; the regional governments, which are responsible for vocational schools and coordinate curriculum development; and the federal government, which determines the framework for legislation and training and also conducts research to evaluate the system<sup>59</sup>.

The dual system is the largest provider of education at upper secondary level. In 2009, 64.8% of the students opted for a dual-system apprenticeship (2010 BIBB data). After registering a constant increase in new training place contracts since 2005, a decline was noted from 2008 onwards, and in 2010 the number of new apprenticeship contracts declined to 560.073. In fact, over the last years, apprenticeship places have failed to match the strong demand from young people and some wait several years for a place. Finally, concerning ISCED 5B, in 2007 there were 328.429 students. Moreover, ISCED5 Dual Study programmes are becoming increasingly popular in Germany<sup>60</sup>.

## **2.2 Tertiary Level Initial Vocational Education and Training**

Dual study programmes combine in-company vocational training with theoretical studies at a university of applied sciences ("Fachhochschule"), vocational academy ("Berufsakademie"), trade and technical school ("Fachschule"), university, administration and business academy ("Verwaltungs- und Wirtschaftsakademie") or since 2009 at a dual university<sup>61</sup>.

In contrast to regular university studies, dual study programmes are marked by especially high practical work relevance. By combining practical in-company training with theoretical instruction, students have the chance to acquire two qualifications at once in a large number of study programmes: a vocational training qualification and an academic degree (in almost all cases a bachelor's degree). Dual

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<sup>59</sup> Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 2

<sup>60</sup> European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 35

<sup>61</sup> op. cit., 171

courses of study are an especially innovative, attractive and practical way of studying that has enjoyed increasing popularity for years with companies and young people<sup>62</sup>.

A co-operation contract between the institution of higher education (or academy) and the training enterprise closely co-ordinates and synchronises the specific learning contents. Also between the student and the training enterprise a contractual relationship is concluded, either in the form of a training contract, a work contract or an internship agreement (the relationship is regulated through a training contract, student-employee contract or unpaid-trainee contract)<sup>63</sup>.

Fachhochschulen (Universities of applied sciences), universities and Fachschulen (trade and technical schools) offer practical work experience through internships. "Fachschulen" offer programmes at ISCED 5B-level that last for 2 to 4 years, while "Fachhochschulen" provide vocationally orientated programmes at ISCED 5A-level, lasting from 3 to 4 years<sup>64</sup>.

On the other hand, some Länder offer additional VET programmes at ISCED 5B-level such as the "Berufsakademien" which combine teaching in institutions of higher education and practical training in companies. This programme offers 50% of the training in the company. Enterprises bear the costs of the in-company training and pay the trainee remuneration for training, including for theoretical training in the vocational academy. "Berufsakademien" only exist in a number of regions. Depending on the law of the Land concerned, to enter a vocational academy, applicants must have different certificates, as well as a training contract. The relevant Land law normally lays down a period of study of 3 years<sup>65</sup>.

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<sup>62</sup> European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 171

<sup>63</sup> op. cit., 172

<sup>64</sup> op. cit., 172

<sup>65</sup> op. cit., 172

### 2.3 Employment Prospects

In all countries with higher or lower participation rate in secondary/high school vocational training, graduates of Higher Education appear to have better employment rates than those of secondary education. In Germany between 2002 and 2011 a decrease in unemployment rates of secondary school graduates was recorded, while at the same time, participation of students in vocational education was reduced. In fact, in recent years, people who pass through the transition system of education because they do not have an apprenticeship contract are more than those who take part in the Dual training system<sup>66</sup>.

In particular in Germany, which is the European Standard of successful implementation of the dual system and the connection of vocational education with the labour market, it happens the opposite. As participation in vocational training is decreasing, so does the youth unemployment. Apprenticeships last two to four years, depending on the profession, and are followed by a final examination. 59% of apprentices are then employed by the firm that trained them. They are offered in over 300 occupations, of which 60% are in the service sector and 40% are in industrial production<sup>67</sup>.

Countries such as Germany target young people under the age of 25 for their apprenticeships<sup>68</sup>. According to the OECD (2010), in 2008 the largest share of youth jobs (23%) in the OECD area were in the wholesale and retail trade sectors. The two other large employers of youth were manufacturing with 17% of jobs and hotels and restaurants at 11%. In 2006, the top two apprentice occupations in Germany were automotive mechanics and retail sales<sup>69</sup>. Retail trade and manufacturing are more likely to employ youth, and apprentices in Germany are smartly choosing to enter those sectors. Little wonder then that German youth, already professionally trained in the sectors most likely to employ them, have an easier time finding work.

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<sup>66</sup> Paidoussi Chrysa, *Dual vocational education system: The German "narration" for linking education to employment in Greece*, Athens (National Institute of Employment and Human Resources), February 2014, 44

<sup>67</sup> Aivazova Natalia, *Role of apprenticeships in combating youth unemployment in Europe and the United States*, Peterson Institute for International Economics, August 2013 in Steedman H., *The State of Apprenticeships in 2010*, London School of Economics and Political Science, 2010, 5

<sup>68</sup> Aivazova Natalia, *Role of apprenticeships in combating youth unemployment in Europe and the United States*, Peterson Institute for International Economics, August 2013 in ILO (International Labour Organization), *Overview of Apprenticeship Systems and Issues: ILO Contribution to the G20 Task Force on Employment*, Geneva, 2012, 5

<sup>69</sup> Aivazova N., op. cit., 5

The German occupational model gives employment guarantees but the career prospects within the same category are slender, except when changing categories (eg. changing to foreman). On the other hand, the typical model of the internal market attributes great importance to lower level entries. The firm creates vertical mobility according to its own rules (eg. seniority)<sup>70</sup>.

In Germany both the roles and the financial contribution of each partner involved in the dual education system are defined. Under the existing agreement, there is a significant part of the cost of vocational training, such as the salaries of apprentices, which is covered by the private enterprises in which they work as trainees. This obligation is an acknowledgement by the business world that apprenticeship is a significant investment for their enterprises<sup>71</sup>.

#### **2.4 Costs and Benefits to Apprentices and Companies**

The costs of the dual educational system are shared by regional governments, private companies, and the apprentices themselves. The government pays for the costs of the public education side of training, which amounts to about one percent of the country's gross domestic product while the companies pay for all of the costs associated with the on-the-job training. In 1992 these three-to-four year training programmes cost private firms an average of 16.532€ per apprentice<sup>72</sup>.

German firms that recruit apprentices do not generally receive direct subsidy from public funds, except for some particular circumstances (i.e. hiring young people with some form of disability or creation of groups of small firms to set up and run joint training facilities). Enterprises bear the costs of the in-company training and pay the trainee remuneration as regulated by collective agreement which increases with every year of training (average is about one third of the starting pay for a trained skilled worker)<sup>73</sup>.

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<sup>70</sup> Géhim J.P., Méhaut Ph., *The German dual system: A model for Europe?*, Industrielle Beziehungen: Zeitschrift für Arbeit, Organisation und Management, January 1995, 69

<sup>71</sup> Paidoussi Chrysa, *Dual vocational education system: The German "narration" for linking education to employment in Greece*, Athens (National Institute of Employment and Human Resources), February 2014, 51

<sup>72</sup> Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 3

<sup>73</sup> European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 172

The school-based element of dual vocational training is financed by Land and local authority public funds. The Länder bear the costs of internal school affairs (e.g. supervision of schools, implementing curricula, teacher training, teachers' pay), and local authorities are responsible for financing external school affairs (e.g. construction, maintenance and renovation of school buildings, ongoing management, procurement of teaching and learning resources)<sup>74</sup>.

Costs of external assessment and examinations are met by the Chambers of Commerce (or similar organizations) which are funded through a compulsory membership subscription paid by all businesses. The Federally-funded Vocational Training Development Institute (BIBB) bears much of the administrative cost of updating and developing new training occupations<sup>75</sup>.

The apprentice can also take credit for bearing some costs of the dual educational system. On the average, an apprentice earns only one-third of the wages of a regular worker. In addition to accepting lower wages, apprentices also invest much time and energy into their pre-apprentice studies. Because of the high competition for the most reputable apprenticeships, secondary students are highly motivated to succeed with their schoolwork. Of course, the resulting strong educational backgrounds help to control the costs of successful training programmes, as students are better prepared for learning what it takes to enter the work environment<sup>76</sup>.

Despite the sacrifices that apprentices must make, companies and young Germans choose to participate in the dual educational system because the combination of internal labour markets and the strength of the labour movement is essential to the success of the apprenticeship system. Nearly half of Germany's workers are represented by labour unions, which strengthens the ability of the workers to retain jobs within their respective companies. This makes it difficult for a German to find a job opening in a labour market in which he/she does not already participate. An apprenticeship, on the other hand, represents a normal point of entry

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<sup>74</sup> European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 172

<sup>75</sup> *op. cit.*, 172

<sup>76</sup> Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 3

into the internal labour market; thus it is much more difficult for one to find a job without having completed an apprenticeship<sup>77</sup>.

In 2009 the number of new apprenticeship contracts declined by 8.2% to 566,004 contracts, and then to 560,073 in 2010. Over the last years, apprenticeship places have failed to match the strong demand from young people and some wait several years for a place (even if demographic trends are reducing the pressure)<sup>78</sup>.

On the other hand, and from an education level perspective, the largest provider of education at upper secondary level is the dual system. In 2009, 64.8% of the students opted for a dual-system apprenticeship (2010 BIBB data). Interestingly also, according to data provided by the Federal Statistical Office, approx. 86% of students in VET-schemes on ISCED levels 3 and 4 enrolled in the dual training system (1,659,259 students in Dual VET in 2009)<sup>79</sup>.

Concerning ISCED 5, 57.3% of the students attended university (1,397,492 students in 2009), whereas 24.6% went to "*Fachhochschulen*" (universities of applied sciences) (600,568 in 2009). Additionally, data available for 2007 show that in 2007 14.4% of the students attending ISCED 5 level chose ISCED 5 B Dual Programmes. It must be highlighted that ISCED 5 Dual Study programmes are becoming increasingly popular in Germany<sup>80</sup>.

There are also reasons why employers participate in apprentice training. In Germany wage agreements for most industries are negotiated by employer representatives and trade unions. Because of this wage bargaining system, it is difficult for companies to use wages to lure post-apprentices away from the companies where they were trained. In fact, post-apprentices available for hiring are often viewed unfavorably. First, it is possible that the firms that trained the workers did not want to retain them as employees, which implies that the workers were not valuable to the organizations. Secondly, it is possible that the workers themselves chose not to continue employment with the companies that provided training, which in the German system might indicate a lack of worker loyalty. Thus, it is ultimately

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<sup>77</sup> Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 3

<sup>78</sup> European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications office of the European Union, 2012, 172

<sup>79</sup> op. cit., 172

<sup>80</sup> op. cit., 172

safer for companies to fill their skill vacancies through internal training rather than by competing in the external labour market<sup>81</sup>.

Another factor responsible for the large number of willing participants in the apprenticeship system involves the positive employer-employee relationships that many attribute to training. Employees often feel a sense of obligation to the company that invested so much into their training, and accordingly plan to remain at the company for a long time. For instance, in 1991 18.9% of all German male employees had a tenure of over ten years at their present jobs, 28.8% had a tenure of ten to twenty years, and 19.8% of male Germans had a tenure of over twenty years. Such long-term commitments can be viewed as beneficial to both the employee and the employer<sup>82</sup>.

These long-term relationships not only maximize worker value-added time (that is, after the workers have already "come up the learning curve"), but they also represent another reason that the dual educational system is successful. Employers generally retain approximately one-half of their apprentices as employees; furthermore, as stated earlier, once an employee commits to a job, he/she generally stays there for significant periods of time. Thus, companies work hard to attract the best apprentices, hoping that many of them will remain as employees. To attract apprentices with the highest potential, companies strive to create reputable training programmes. As a result, on-the-job training programmes almost always exceed the minimum standards set by employer associations<sup>83</sup>.

The high cost of German labour is another force driving companies to participate in apprenticeship programmes. For every euro of direct wages paid to employees, companies pay an additional 77 cents in secondary costs for such benefits as social security, unemployment and health insurance, vacation pay, and company pension plans. The average German work-week is only about 37.5 hours, and workers generally exhibit high absenteeism rates. In German companies experience average absenteeism rates of ten percent among their blue collar workers, with these workers receiving full pay for up to six weeks' worth of sick days per year. Given

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<sup>81</sup> Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996, 3

<sup>82</sup> op. cit., 3

<sup>83</sup> op. cit., 4



such high comparative labour costs, it would be difficult for Germany to compete in international markets based only on the relative cost of inputs. Therefore, companies must focus on producing high quality products and on maximizing the efficiency of the labour force. These two goals are probably most easily met by investing in worker training programmes<sup>84</sup>.

Finally, the structure of German financial institutions encourages companies to participate in apprentice training programmes. Banks are significant shareholders in most major companies, with a representative of the bank sitting on each company's supervisory board. Thus, banks can play a part in the company's strategic decisions, and in general will provide it with a long-term financial perspective. Also, because of their investment interests, banks will monitor the companies to ensure that they operate efficiently and do not regularly participate in high-risk activities. Additionally, because takeovers require approval from 75% of all stockholders, banks are capable of blocking hostile takeover attempts, adding security to the firm's operations. Banks play a major role in allowing the companies to do what is best for them in the long run, thus making it feasible for companies to invest in educating the workforce. This ultimately pays off in the form of higher quality output<sup>85</sup>.

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<sup>84</sup> Petrosky Jenna, *The German dual educational system: evolving needs for a skilled workforce*, 1996,

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<sup>85</sup> op. cit., 4

## CHAPTER 3 The Greek case

### 3.1 Technical Education in Greece

In the late 90s a major reform intervention in Secondary Education was attempted. The relevant to this subject interventions that were made, were inter alia, the establishment of the Unified Lyceum (Ενιαίο Λύκειο) by incorporating in it all types of Lyceums (General, TEL, EPL, Classical), the introduction of Lyceum Baccalaureate for admission to Universities and Technological Educational Institutes (TEI), and the establishment of Technical Vocational Schools (TEE) for administrating a specialty certification of level 2 and 3. The objective of TEE is referred to as the combination of general education with specialized technical and professional knowledge, with the purpose of professional integration in the labour market<sup>86</sup>.

Attendance in TEE was organized in two circles, with the first circle lasting two years and the second one year. During all years of their studies TEE students attend both general education courses and specialization courses. Until 2006, graduates of first circle acquired a specialty certification of Level 2 and they could either join the labour market, register- if they wished so- to the second circle of TEE, register to the second grade of Unified Lyceum, or register to the first semester of IEK in relevant specialties to acquire specialization. Graduates of second circle acquired a specialty certification of Level 3 and could either enter the labour market or register to the third semester of IEK in relevant specialties to acquire specialization<sup>87</sup>. Graduates of the second circle, provided that they had completed the three years professional experience in their specialty, could register to TEI in specialties sections corresponding with their degrees specialty.

Due to the continuously declining attractiveness of technical vocational education which is related to the lack of financial support and secondary education reforms from the state, this reform of the institution was attempted, by Law 3475/2006, without financial support nor simultaneous changes in Secondary General Education. With that law, and the relevant subsequent provisions, the

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<sup>86</sup>Karatzogiannis Stathis, Pantazi Stavroula, *The Vocational Education and Training in Greece: potentialities, weaknesses and prospects*, Athens (IME GSEVEE) 2014, 92

<sup>87</sup>op. cit., 92

Technical and Vocational High School (Τεχνικό Επαγγελματικό Λύκειο) was transformed from the form of two-circles TEE into EPAL and EPAS with new data and declarations: The EPAL would provide substantive general education, a range of vocational training, basic professional knowledge in a broad sector of economic activity, professional competence -not specialization- in a specific profession, so that all graduates have the ability to follow developments in technology and adapt to new labour market conditions, thus avoiding unemployment and social exclusion. The study programme would provide the necessary epistemic background for: a) smooth and creative integration in professional and social life, b) study place claims in Universities and ATEI, c) retraining and effective lifelong training<sup>88</sup>.

The EPAL diploma is equivalent to that of Unified Lyceum both for the access to Higher Education and the recruitment in the public sector. EPAS will enable those wishing to follow specialties which do not require extensive theoretical support, but will be mainly focused on practical training so that their graduates be directly integrated into the labour market as crafts. The study programmes of EPAS include only technical-vocational courses and laboratory exercises. The required general education is provided in the first grade of High School from which students of EPAS are derived. What is more, the establishment of EPAS in bodies other than Ministry of Education is also envisaged. However, with subsequent provisions, the Study Circles were drastically limited, the Specializations shifted to EPAS, and the first grade became particularly difficult for low-performance students<sup>89</sup>.

According to Pedagogical Institute, despite all reform efforts, TEE did not cease to constitute, in its official version, a school equivalent to Unified Lyceum, but in the collective recognition and in tangible reality it was a school inferior to the Lyceum and discredited. Secondary TEE, whatever forms it has taken in respective educational reforms, is determined by third-parties, by its relation with the Lyceum, which was almost always a deficit relation to the detriment of Technical Vocational Education<sup>90</sup>.

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<sup>88</sup>Karatzogiannis Stathis, Pantazi Stavroula, *The Vocational Education and Training in Greece: potentialities, weaknesses and prospects*, Athens (IME GSEVEE) 2014, 92-93

<sup>89</sup>op. cit., 93

<sup>90</sup>op. cit., 93

### **3.2 National System for the Connection of Vocational Education and Training with Employment - E.S.S.E.E.K.A.**

By Law 3191/2003 the National System for the Connection of Vocational Education and Training with Employment was established. It was defined as the complete set of mutually compatible functions and means by which, in a structured and integrated way, the national policy for the connection of vocational education with vocational training was established, as well as the employment, in order to meet peoples' both personal and social needs for knowledge and skills, and on the other hand to meet labour market needs for professional personnel who has the necessary skills and qualifications for a specific purpose<sup>91</sup>.

The strategic objectives of the E.S.S.E.E.K.A. were:

- To establish and continuously operate a reliable and effective unified system for research, mapping and documentation of labour market workforce needs corresponding to professions, which can derive from vocational education and training<sup>92</sup>.

- To configure specifications of specialties or specializations and the efficient conjugation with vocational education and training curricula.

- To coordinate the curricula and provided systems by Vocational Education and Vocational Training Systems.

- To configure of unified rules:

For the evaluation and accreditation of vocational education and training (institutions, programmes, instructors, trainees, infrastructure and equipment); For the process of defining professional rights by specialization or expertise, where these are needed; For the certification of professional qualifications, regardless their method of acquisition.

- To configure and continuously operate an effective and efficient system of Counseling and Professional Orientation and Connection with the Labour Market for trainees and graduates of vocational education and training.

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<sup>91</sup>Karatzogiannis Stathis, Pantazi Stavroula, *The Vocational Education and Training in Greece: potentialities, weaknesses and prospects*, Athens (IME GSEVEE) 2014, 95

<sup>92</sup>op. cit., 96

- Promote the social recognition of Vocational Education and Training Systems<sup>93</sup>.

### 3.3 Apprenticeship supply in Greece

In Greece, VET Upper Secondary Level schools (EPAL and EPAS) offer exclusively school-based training (practical training is offered within the school premises). In any case, some VET schools have incorporated visits to enterprises as a means to help trainees realize the actual dimensions of work. Furthermore, 6 months of optional practical training after the acquisition of VET certificate might be offered, supervised and subsidized by OEEK (the Organization for Vocational Education and Training - Organismos Epaggelmatikis Ekpaideusis kai Katartisis).

Interestingly, and as an alternative to the formal (school-based) Initial Vocational Education and Training System (IVET System), there exists an apprenticeship programme known as "Mathiteia", which equates to the Upper Secondary Level of education. Apprenticeship is defined as alternating training in a school and the workplace (4 days a week, in the mornings, students work as trainees in an enterprise, whereas in the afternoons, they attend classes at Apprenticeship vocational schools). Also, one day per week, students only attend classes at school. The duration of the studies in apprenticeship is 2 years (four semesters). The apprentice is contractually linked to the employer and receives a wage. At the end of their studies, trainees acquire a Specialty Certificate<sup>94</sup>.

#### 3.3.1 OAED apprenticeship programmes

Apprenticeship was established by legislative Decree 3971/1959 and is based on the German dual learning system which combines in-class education with paid traineeship in an enterprise. OAED, the Manpower Employment Organization (Organismos Apascholiseos Ergatikou Dynamikou), operates 51 EPAS apprenticeship schools all over Greece, which have an average annual enrolment of 10.000 students, depending on the relevant annual announcement. Their courses last

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<sup>93</sup>Karatzogiannis Stathis, Pantazi Stavroula, *The Vocational Education and Training in Greece: potentialities, weaknesses and prospects*, Athens (IME GSEVEE) 2014, 96

<sup>94</sup>European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg Publications Office of the European Union, 2012, p. 43

two school years (four semesters). As of 2011, the subsidy amount for enterprises is 12€ for each day of traineeship. The subsidy may be paid to the employer or directly to the apprentice. The amount paid to the trainee student is 70% of the minimum wage set by the National General Collective Agreement (EGSSE), for all four traineeship semesters<sup>95</sup>.

The institution of apprenticeship has been strengthened across the country by the establishment and operation of 30 vocational education career offices (GDDE) within the framework of the EPAS. These aim to systematically link vocational education to the working world by placing students in appropriate jobs in private and public sector enterprises. The effectiveness of the apprenticeship system in terms of labour market integration is clearly illustrated by the percentage of trainees entering employment on completion of their studies (70%). When EPAS graduates complete their studies, they have obtained a specialization diploma corresponding to EQF level 4 and work experience<sup>96</sup>.

The selection criteria of trainees are the average grade of their lower secondary certificate and their social and economic condition. They admit students aged 16 to 23 who have completed at least one class of the upper secondary school. The paid practical work takes place four or five days a week in public or private sector enterprises on terms specified in the relevant apprenticeship contract. Participating enterprises are subsidised. The school is responsible for finding work placements for its students. Graduates of A' grade of General or Vocational school are the only ones who can enroll in apprenticeship schools. Training in school is provided by Apprenticeship vocational schools (Apprenticeship EPAS – EPAS Mathiteias), which are under the supervision of the OAED of the Ministry of Employment and Social Protection (Ypourgeio Apascholis kai Koinonikis Prostatias, YP.A.K.P.)<sup>97</sup>.

EPAS are funded by the money allotted to the YP.A.K.P. from the State Budget, as well as by European funds. In particular, as far as the fees of teachers and

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<sup>95</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxembourg, Publications Office of the European Union, 2014, 30

<sup>96</sup>op. cit., 30

<sup>97</sup>European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications Office of the European Union, 2012, 173

trainers and the subsidies for the employment of the trainees are concerned in Apprenticeship EPAS, 80% is provided by ESF and the rest 20% derives from national resources<sup>98</sup>. In the apprenticeship system, the apprentice is connected by contract with the employer and receives a wage. Moreover, among the benefits provided by Apprenticeship EPAS, trainees receive food and lodging as well as books and notes, they are insured by the employer for their practical training, and there are no fees for pupils for the theoretical training<sup>99</sup>.

The overall number of participants in upper secondary IVET in 2008, including pupils of apprenticeship EPAS and students in the school-based system, is 106.376, according to statistics of the Ministry of Education and Religious Affairs and the National Statistics Service of Greece. However, in the school term 2007-2008, 13.964 students attended Apprenticeship<sup>100</sup>.

Between 2001-02 and 2011-12 enrolment in OAED's EPAS schools dropped by more than 32%, a figure comparable to the general drop in numbers in VET training (EPAL and IEK). Over that period the number of girls in EPAS schools rose from 25% of the student population to 36.5%. The most popular courses offered by these schools are those for electricians, plumbers, car mechanics, computer technicians and hairdressers<sup>101</sup>.

### 3.3.2 Apprenticeship Schools

In Greece, OAED, apart from its overall role in implementing the government policy on employment and combating unemployment, is the only national agency that offers Vocational Education within the framework of formal secondary education by means of the Apprenticeship system<sup>102</sup>.

OAED has implemented the institution of Apprenticeship since 1952. It has also put forward a dual system of education that combines theoretical and laboratory education at the EPAS school with work practice (on the job training) in

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<sup>98</sup>European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications Office of the European Union, 2012, 173

<sup>99</sup>op. cit., 173

<sup>100</sup>op. cit., 43

<sup>101</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 31

<sup>102</sup>Theodoridou N., *The Greek dual apprenticeship system*, Presentation at Workshop on apprenticeship, Athens, OAED, 2014, 2

the workplace (Dual System–Central European system of education). The dual system of educations has allowed an effective involvement of students in the field of specialization of their choice. Thus students assimilate theoretical knowledge, develop their skills in their field of specialization, as well as their personal soft skills, since they have direct contact with the workplace, and must implement, in actual work conditions, what they have learned in the classroom or labouratory<sup>103</sup>.

OAED has provided an infrastructure and teaching personnel all over Greece. EPAS teachers have both the necessary academic background and work experience directly related to each area of specialization. Indeed, this is true of both EPAS permanent teachers and hourly-paid teachers, the latter being selected by OAED according to a point-system, in which both the academic background and the relevant work experience are taken into consideration<sup>104</sup>.

Regarding practical training, trainees become active members in the labour market from the first year of their studies. The employer assumes responsibility for providing the trainee with training leading to a specific occupation. Furthermore, apprenticeship EPAS focus on specialties demanded by the labour market. Changes in the labour market are reflected in the study programmes which are constantly adapted to its needs. At the end of their studies, trainees acquire a Specialty Certificate. Obtaining this certificate they can either enter the labour market or continue their studies in IEK- Post-secondary non-higher education (only school-based). However, it is interesting to comment on the Law 3475/2006. This Law established new types of upper secondary schools offering vocational education, which are known as EPAL and EPAS. These relatively new vocational schools only provide school-based education (practical training is offered within the school premises)<sup>105</sup>.

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<sup>103</sup>Theodoridou Nasia, *The Greek dual apprenticeship system*, Presentation at Workshop on apprenticeship, Athens, OAED, 2014, 2-3

<sup>104</sup>op. cit., 4

<sup>105</sup>European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *Apprenticeship supply in the Member States of the European Union*, Luxembourg, Publications Office of the European Union, 2012, 173



### **3.4 Law 4186/2013 on the Vocational Education and Training**

The Law 4186/2013 was voted by the Greek Parliament on 10/9/2013 and was published on 17/9/2013. The new Law on the Restructuring of Secondary Education concerns the operation of the General Lyceum, the Vocational Lyceum (EPAL), the Vocational Training Schools (SEK), the Vocational Training Institutes (IEK), the Lifelong Learning Centres. It maintains the Dual System of Apprenticeship in VET. It extends the institution of Apprenticeship to the entire range of Vocational Lyceum and Vocational Training Schools, it establishes Experimental Vocational Training Schools, it integrates the Apprenticeship Grade (after Vocational Lyceum) into Formal Education, and the Vocational Training Schools into Non-formal Education, and it responds to the requirements set by the EU Youth Guarantee scheme<sup>106</sup>.

Following the Apprenticeship Grade is optional. This Grade's programme is based on the labouratory subject of "Further Labouratory Education for Apprenticeship", which lasts for 7 hours per week, is distributed over two days, and is offered at the OAED school units and the EPAL for one school year. It also comprises a programme of Workplace Training –Workplace-based Apprenticeship for 28 hours per week, which is distributed over 5 days. An Apprenticeship Contract is signed between OAED and the employer, clearly determining the work practice implementation terms<sup>107</sup>.

### **3.5 Apprenticeship within the Greek Vocational Education and Training System**

In Greece schooling is compulsory for all children aged 5 to 15. Compulsory education includes primary (kindergarten, one year, and primary school, six years) and lower secondary education (three years), at a day or, for working students, an evening school. Graduation from lower secondary education completes the cycle of compulsory schooling and students can then choose whether to continue in general or vocational education. If they choose to continue in general education they will attend classes at a general upper secondary school (GEL), for three years of upper secondary education; there are also evening schools for working students, and in

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<sup>106</sup>Theodoridou Nasia, *The Greek dual apprenticeship system*, Presentation at Workshop on apprenticeship, Athens, OAED, 2014, 8-9

<sup>107</sup>op. cit., 10

these the programme is four years. Students enter upper secondary school at the age of 15 and graduate at 18. In the first year the programme is general, while in the second and third years students take both general education and special orientation subjects. The choice of subjects is informed by educational or vocational guidance offered through the decentralized structures of the Ministry of Education's Vocational Orientation Guidance and Educational Activities Directorate (SEPED). Those who graduate from a general upper secondary school can sit the national examinations for admission to a tertiary education programme<sup>108</sup>.

According to the new law regulating secondary education (Law 4186/2013), which aims among other things to attract more students into VET, students now have the following options in addition to the general upper secondary school:

- initial vocational education within the formal education system in the second cycle of secondary education at a vocational upper secondary school(day or evening school);
- initial vocational training outside the formal education system (referred to as non-formal) in vocational training schools (SEK), vocational training institutes (IEK), centres for lifelong learning and colleges<sup>109</sup>. In the following table (TABLE 1) we can see the main features of apprenticeship types in Greece.

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<sup>108</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 20

<sup>109</sup>op. cit., 21

**TABLE 1 Apprenticeship Types in Greece**

Apprenticeship Types in Greece		
<p><b>Formal Vocational Training</b></p>	<p>Vocational Lyceums (EPA.L.)</p>	<p>Formal Vocational Training is provided only by EPA.L. and only in school units. The curriculum focuses on technical and economic specializations. Dual-System apprenticeship is implemented in formal secondary education only at post-secondary level. Social partners and public authorities undertake a crucial role in determining the specializations and sectors.</p>
<p><b>Non-Formal Vocational Training</b></p>	<p>Vocational Training Schools (S.E.K.)</p>	<p>Three-year studies. It is directed to Junior High School graduates the least. The curriculum includes a wide field of specializations. Social partners and public authorities undertake a crucial role in determining the specializations and sectors.</p>
	<p>Institutes of Vocational Training (I.E.K.)</p>	<p>Two-year studies. I.E.K. provides initial training to G.E.L., EPA.L. and S.E.K. graduates. The</p>

		curriculum includes a wide field of specializations. Social partners and public authorities undertake a crucial role in determining the specializations and sectors.
	Lifelong Learning Centres	It provides adults with continuing vocational training, career orientation and counseling.
	Colleges	Provide non formal education to graduates of G.E.L. and EPA.L.

Source: Paidoussi Ch., *Dual vocational education system: The German "narration" for linking education to employment in Greece*, Athens (National Institute of Employment and Human Resources), February 2014, 25-26

### **3.5.1 Initial formal vocational education: vocational upper secondary schools (EPAL)**

At national level (Law 3879/2010 concerning lifelong learning), formal VET leads to the acquisition of certificates recognized nationally by public authorities, and is part of the education ladder. Formal education also includes education for adults. According to the law on secondary education (Law 4186/2013), vocational education is provided by the vocational upper secondary school. These schools(public or private) are funded exclusively by the Ministry of Education and Religious Affairs and may be day or evening schools. The minimum age for enrolment in a vocational evening school is 16<sup>110</sup>.

<sup>110</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 21

The public vocational upper secondary schools offer a variety of specialties. The curricula are organised by sector, group and specialty, with most sectors offering two or more specialties. The sectors currently covered are informatics, mechanical engineering, electrical engineering/electronics/automatics, construction, environment and natural resources, administration and economics, agronomy-food technology and nutrition, and occupations in the merchant marine (captain, mechanic)<sup>111</sup>.

According to the new law specialties should be tailored to national and regional economic needs, following the recommendations of the ministries, regional administrations and social partners. Curricula can be developed in line with the European credit system for VET (ECVET), and take into account, where these exist, related job profiles certified by the National Organization for the Certification of Qualifications and Vocational Guidance (Eoppep). Programmes at vocational upper secondary school can lead to two levels, a three-year programme and an additional 'apprenticeship year'<sup>112</sup>.

In the day schools the secondary cycle comprises three years. Students with lower secondary leaving certificates or equivalent qualifications enroll in the first year without entrance examinations. Students promoted from the first year of a vocational upper secondary school are entitled to enroll in the second year of a general upper secondary school: this means that the system allows for horizontal mobility<sup>113</sup>.

The "apprenticeship year" (education in the workplace), which is optional and is an innovation introduced by the new law, is open to those who have earned the certificate and diploma attesting completion of the three-year upper secondary education at a vocational upper secondary school. Implementing OAED's dual learning principle, it includes learning at the workplace, a specialization course, and preparatory courses for certification at the school. The vocational upper secondary schools and OAED share responsibility for implementing the apprenticeship year, assigning the students to work placements, and all that this entails<sup>114</sup>.

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<sup>111</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 21

<sup>112</sup>op. cit., 21-22

<sup>113</sup>op. cit., 22-23

<sup>114</sup>op. cit., 23

Between 2001 and 2011, the student population in vocational education dropped sharply, decreasing by more than 35%. In the case of the private vocational schools particularly, student numbers fell continuously over the period, decreasing by a total of around 91%. The number of female students declined steadily, with a net loss of more than 50% between 2001 and 2011. The percentage of foreign and repatriated students in the vocational upper secondary schools in the school year 2009-10 was 16% and 15% in the EPAS apprenticeship system<sup>115</sup>.

In both EPAL and EPAS, the sectors and specialties where some growth seems to be developing are related to services. Specialties oriented towards the processing industry, construction and agriculture are either absent or inadequate. A study published by the Hellenic Federation of Enterprises (SEV) urges that sectors considered particularly important for the country's economic growth in 2014-20 be taken into consideration in determining the specialties to be offered by VET (health, energy, supply chain, information science, food, environment, metals and construction materials). None the less, a number of the 52 specialties that the Minister for Education removed from public EPAL and EPAS programmes in 2013 were in popular or dynamic sectors<sup>116</sup>.

**TABLE 2 Circles, Sectors and Specializations of EPA.L. 2013**

<b>Circles Grade A'</b>	<b>Sectors Grade B'</b>	<b>Specializations Grade C'</b>
<b>Technological</b>	Mechanical Engineering	-Mechanical Installations and Applications -Cooling and Air Conditioning Installations
	Vehicles	-Mechanical and Electrical Car Systems
	Electrical Engineering	-Electrical Installations
	Construction Works	-Construction Work Designers

<sup>115</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 23

<sup>116</sup>op. cit., 23

	Applied Arts	-Graphic Arts
	Electronics	-Electronic Computing Systems and Networks -Electronic Systems and Communications
<b>Services</b>	Health and Welfare	-Nurse Assistant -Medical and Biological Laboratories Assistant -Nursery Assistant
	Food Stuff Agriculture	-Modern Entrepreneurial Agriculture -Food Technology and Inspection -Landscape and Environmental Projects
	Informatics	-Support of application and network systems
	Financial and Administrative Services	-Administrative and Financial Services Officers -Tourism Enterprises Personnel
<b>Maritime</b>	Marine Captains	-Merchant Marine Captains
	Marine Mechanics	-Merchant Marine Mechanics

Source: Paidoussi Ch., *Dual vocational education system: The German "narration" for linking education to employment in Greece*, Athens (National Institute of Employment and Human Resources), February 2014, 22

Those who complete an upper secondary programme are awarded a vocational upper secondary school leaving certificate (equivalent to the general upper secondary school leaving certificate) and a specialization diploma at European

qualifications framework (EQF) level 4<sup>117</sup>, following school examinations administered by EPAL. Graduates of the "apprenticeship year" receive a diploma at EQF level 5 issued jointly by the Ministry of Education and OAED, after procedures for certification of their qualifications by the national agency have been completed. Graduates of a vocational upper secondary evening school do not have to enroll in the "apprenticeship year" but can apply for certification of their qualifications if they have worked for at least 600 days in the specialty with which they graduated from the third year<sup>118</sup>.

The body responsible for certification of qualifications and for awarding specialization diplomas to graduates of "apprenticeship year" is Eoppep, either alone or jointly with OAED. Those who pass certification examinations receive both the related specialization diploma and a license to practice their trade. As appropriate, other ministries that issue corresponding occupational licenses may take part in conducting examinations<sup>119</sup>.

Also, EPAL graduates and those holding an equivalent certificate from a previous form of school or programme or equivalent certificates from another country are entitled to take part in national examinations for admission to a technological educational institution (TEI) in specialties corresponding or related to their diploma; the number of such places is governed by a quota system. They can also take part in national examinations for admission to universities and TEI, on the same terms and conditions as apply to graduates of general upper secondary school<sup>120</sup>.

For the "apprenticeship year" responsibility for students' work placements and associated matters is shared by EPAL and OAED. "Apprenticeship year" programmes are to be financed from national and/or EU funds, with no contribution

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<sup>117</sup>Article 6 of Law 2009/1992 had specified the levels of certificates of VET. The new law restructuring secondary education (4186/2013) redefines these levels, which however do not correspond to any international classification (e.g. ISCED or EQF). The level in question refers to the most recent edition of the report comparing the national and the European qualifications framework (January 2014)

<sup>118</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 23-24

<sup>119</sup>op. cit., 24

<sup>120</sup>op. cit., 24



from the participating enterprises, in contrast to most other European countries that implement apprenticeship systems<sup>121</sup>.

### **3.5.2 Non-formal VET: vocational training schools (SEK), post-secondary VET schools (IEK)**

The Lifelong Learning Act (Law 3879/2010) defines as "non-formal" education provided in an organized framework outside the formal education system which can lead to nationally recognized qualifications. It includes initial vocational training, continuous vocational training and adult learning<sup>122</sup>.

Providers of vocational training (public or private) outside the formal education system are supervised by the General Secretariat for Lifelong Learning (GSL) of the Ministry of Education. Under the new law, the specialties offered in public vocational training and the sectors under which they are classified is determined by decision of the Minister for Education in accordance with the needs of the national and local economy and proposals of regional administrations, competent ministries and social partners. Curricula for each specialty should take into account related job profiles or required occupational qualifications. Curricula for initial vocational training are developed and overseen by the GSL and certified by the Eoppep. They can be defined in terms of learning outcomes and linked to credits, following ECVET<sup>123</sup>.

### **3.5.3 Explaining Vocational training schools (SEK)**

In 2014, the Ministry of Education proceeds to the operation of the Public Schools of Vocational Training (SEK), ensuring the smooth flow of the educational process, enhancing the professional dynamics of trainees and setting on new basis the linkage of vocational training with the requirements of the modern labour market. Altogether, 21 out of 96 pilot Vocational Training Schools would operate, targeted to Greek territory, based on criteria of the maximum possible dispersion and absorption ability of students into the labour market after the end of training and apprenticeship.

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<sup>121</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 24

<sup>122</sup>op. cit., 24-25

<sup>123</sup>op. cit., 25

The newly-established SEK which replace the previous EPAS can be public or private and provide initial vocational training to those who have completed compulsory education. The programmes are of three years' duration and there are no tuition fees at public schools. Students who are over 20 or employed attend evening vocational training schools for four years<sup>124</sup>.

The last year of the three-year SEK programme is apprenticeship. Holders of a lower secondary school leaving certificate or equivalent can enroll in the first year of a SEK without examinations. Under the law on secondary education (Law 4186/2013), SEK programmes are structured into streams: agronomy and food technology/nutrition, technological applications, arts and applied arts, tourism and hospitality occupations. Each stream offers more than one specialty; certain specialties are offered outside those groups<sup>125</sup>.

**TABLE 3 Specializations of SEK 2013**

<b>Specializations of the SEK for the academic year 2013</b>	
1. Dairy and Cheese production	19. Car, Motorcycle and Marine Engines Engineers
2. Animal Production	20. Beverages and Enology (Baristas)
3. Electrical Installations	21. Constructions Machinery Engineers
4. Tourism and Hosting Enterprises (Reception, Floors and Product Services)	22. Auto Motor Vehicle Electricians
5. Crop Production	23. Apiculture
6. Floriculture and Plant Art	24. Fisheries and Fish Farming
7. Irrigation Craftsman	25. Maintenance of Musical Instruments
8. Hairdressing	26. Viticulture, Enology and Distillery
9. Chiropodist Beautician and Nail Grooming	27. Greenhouse Crops and Constructions

<sup>124</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 25

<sup>125</sup>op. cit., 25

10. Aesthetics and Make up Art	28. String Musical Instruments Manufacture
11. Graphic Arts	29. Stonemason, Marble and Lapidary Craftsmen
12. Machine Tools and Turners	30. Poultry Craftsmen
13. Pastry and Bakery	31. Silver and Goldsmith Craftsmen
14. Culinary Art	32. Ceramic pottery art Craftsmen
15. Plumbing Installations	33. Dressmaking Art
16. Photography Labouratory	34. Agricultural Machinery Engineer
17. Restaurant and Food Services (waiters/waitresses)	35. Vehicle Refinishing and Painting
18. Electronic Appliances Technician	36. Carpentry and Furniture Craftsmen

Source: <http://www.minedu.gov.gr/grafeio-typoy-kai-dimosion-sxeseon/deltia-typoy/12527-20-11-14>

In "apprenticeship year", workshop lessons are combined with workplace learning (28 hours/week). This process is governed by a contract between OAED and the employer, which should provide incentives for hiring the trainee after completion of the apprenticeship. Graduates of apprenticeship class can also attend a programme to prepare for the assessment and certification of their qualifications to earn their vocational diploma from Eoppep<sup>126</sup>.

Students promoted from the second year of a SEK are awarded a level 2 vocational training certificate, according to the EQF. Those graduating from apprenticeship year receive a diploma at EQF level 3<sup>127</sup>. Students at an evening SEK who opt not to enroll in an apprenticeship year can take part in qualifications assessment and certification procedures if they have worked for at least 600 days in

<sup>126</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 25

<sup>127</sup>Article 6 of Law 2009/1992 specified the level of certificates of VET. The new law restructuring secondary education (4186/2013) redefines these levels, which however do not correspond to any international classification (e.g. ISCED or EQF). The level in question refers to the most recent edition of the report comparing the national and the European qualifications framework (January 2014).

the specialty with which they graduated from the second year of the SEK. Tertiary education programmes are not open to SEK graduates (no "vertical mobility")<sup>128</sup>.

### **3.5.4 Explaining Post-secondary VET schools (IEK)**

They are public and private institutions which provide initial vocational training mostly for graduates of upper secondary schools, and secondarily to those who have completed a SEK programme, with a view to integrating them into the labour market. They are open to EPAL graduates (who may enter the third semester of a related specialty), graduates of general upper secondary school, graduates of lower secondary school (in a limited number of specialties) and foreign nationals (with language competence certificates)<sup>129</sup>.

IEK programmes last five semesters, four of theoretical and laboratory training totalling up to 1.200 teaching hours in the specialty, and one of practical training or apprenticeship totalling 1.050 hours, which may be continuous or segmented. Each IEK can focus on a particular sector or offer training in several sectors, such as applied arts, tourism and transportation, food and beverage, industrial chemistry, informatics, telecommunications and networks, clothing and footwear, which include various specialties<sup>130</sup>. A detailed list of the specializations offered by IEK is given below (TABLE 4).

Students who successfully complete all the prescribed semesters are awarded a verification of vocational training which entitles them to take part in the (practical and theoretical) vocational training certification examinations conducted under the jurisdiction of Eoppep, with which they acquire an upper secondary VET certificate. IEK graduates are awarded occupational specialization diplomas at EQF level 5<sup>131</sup>.

In 2012 there were 93 public IEKs in 74 cities and 46 private IEK in 15 cities, with respective student populations of 10.800 and 21.300 trainees. For the first semester of 2013 the existing data record 9.460 students (3.868 men and 5.592 women) enrolled at public IEKs. Enrolment at IEKs fell between 2000 and 2010, while the percentage of women remained steadily above 50%. This trend may

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<sup>128</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 26

<sup>129</sup>op. cit., 26

<sup>130</sup>op. cit., 26

<sup>131</sup>op. cit., 26

perhaps be explained by the creation of a large number of institutions of higher education offering similar specialties, which absorbed secondary school leavers with lower grades, and the uncertainty relating to the establishing of professional rights of IEK graduates<sup>132</sup>.

**TABLE 4 Specializations of IEK 2014 - 2015**

<b>Specializations of I.E.K. for the Academic Year 2014-2015</b>		
1. Nutrition and Dietetics	24. Ergotherapy Assistants	47. Sketching, Iconography and Graphics Art
2. Culinary Art - Chef	25. Medicine, Cosmetics and similar products technician	48. Theatre makeup and hairdressing
3. Food and Beverage Technology	26. Beauty Care and Makeup Art	49. Artworks and Antiquities Conservation
4. Bakery and Pastry	27. Podiatry and Nail care	50. Animation and Digital Graphic Design
5. IT Applications (Multimedia-Web designer-Developer/Video Games)	28. Thalassotherapy and Spa	51. Printed and electronic graphic design
6. Computer Technician	29. Hairdressing	52. Journalists, Editors and Newscasters
7. Networks and Telecommunications Technician	30. Handmade Jewelry and Jewelry Design	53. Sport Journalism
8. Mechatronics Technician	31. Jewelry Production	54. Radio Producer
9. Cooling, Ventilation and Air Condition Facilities	32. Pottery Art	55. Literature translation, correction, and Text Editing
10. Thermal Installations, Oil and Gas Technology Technician	33. Engraving Art	56. Computerized Accounting - Tax

<sup>132</sup>European Centre for the Development of Vocational Training (CEDEFOP), *Vocational Education and Training in Greece*, Luxemburg, Publications Office of the European Union, 2014, 27

		Consultant Office Executive
11. Automatics Technician	34. Painting Art and Mural painting	57. Management and Finance Executive (Tourism, Culture, Healthcare, Agricultural Economy, Transportation, Maritime)
12. Renewable Resources Facilities	35. Photography Art	58. Executives and Senior Managers Secretary
13. Car and Motorcycle Driving Candidates Instructor	36. Filming	59. Product Trading, Advertisement and Marketing
14. Construction Works and Geoinformatics Designer	37. Sound Recording	60. Supply Chain Operations (Logistics)
15. Technological Applications and Installations in Landscape and Environmental Projects Technician	38. Music Technology	61. Financial and Insurance Services
16. Nursery Assistants	39. Music and Song	62. International Trade Executives
17. Nursing Assistant (General Nursing, Traumatology, Intensive Care Units, Surgery, People with special diseases, obstetrics)	40. Dance	63. Tourist Facilities and Hospitality Enterprises (Reception and Floor Services)
18. Pharmacy Assistant	41. Clothing and Shoe art - Fashion Designer	64. Person's and Infrastructure Security
19. Physiotherapy Assistant	42. Interior Design and Objects Design	65. Museums and Archaeological sites Security
20. Medical Laboratories Assistant	43. Stage and Costume Design	66. Sports Coach
21. Radiology Assistant	44. Stage	67. Forestry Protection

	Direction	
22. Dental Technology Assistant	45. Theatre and Film Acting Art	68. Agritourism
23. Real Estate Management	46. Air Freight Services	69. Flight Manager

Source: [edu.klimaka.gr/metadevterovathmia-ekpaidevsi/iek/934-eidikothtes-fthinopwrino-examhno-dhmosia-iek.html](http://edu.klimaka.gr/metadevterovathmia-ekpaidevsi/iek/934-eidikothtes-fthinopwrino-examhno-dhmosia-iek.html)

### 3.6 The Job Profiles

The purpose of development and certification of job profiles in the context of Lifelong Learning is the structured analysis and recording of the content of professions as well as the acquiring of the required methods to exercise professional qualifications. What is achieved with the certification of vocational profiles is the direct connection of the content of vocational education and training programmes with the respective job profiles, the institutionalization of methods, requirements and criteria of development, assessment and certification of job profiles, and the strengthening of the credibility of vocational training as well as a closer connection with the labour market needs. What is more, the skills of country's workforce are improved and the integration of unemployed and socially vulnerable groups into employment is facilitated. It has achieved to enhance the role of social partners in the lifelong vocational training system and to ensure the quality and effectiveness of the programmes implemented in the framework of lifelong vocational education and training.

Job profile is defined as the total of basic and specific professional functions that compose the workpiece of a profession or specialty, as well as the corresponding necessary knowledge, skills and abilities to respond to these functions<sup>133</sup>. In other words, a job profile specifies the minimum requirements for the practice of a profession.

A job profile contains the following key sections:

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<sup>133</sup> FEK566, ed. B, 8.5.2006 on Job Profiles

- *Section 1: Title and definition of Profession and/or Specialty*

In this section, the best-know and novice to the labour market title of profession and/or specialty is selected and a general description of it is clearly stated. The matching of the profession and/or specialty with the applicable national job classification system is a prerequisite.

- *Section 2: Analysis of the profession and/or the specialty - "specifications"*

In this sections the main and sub-professions are analyzed, to wit, the works that constitute the reference frame of a specific profession and/or specialty are imprinted and recorded. The analysis of professional functions should be based on the philosophy of "prerequisites". By the term "prerequisites" is defined the jointly (by employers and employees) determined list of basic and specific professional functions needed within the frame of profession and/or specialty.

- *Section 3: Required Knowledge, Skills and Competences*

This section describes the required knowledge, skills and competences, including the administrative, social and/or other transversal skills, so that the employee meet the prerequisites of a specific profession and/or specialty. In accordance with the nature and character of the knowledge and skills, they can be divided into general, basic and specific professional knowledge, skills and competences that correspond to the profession and/or specialty being analyzed and their respective sectors.

- *Section 4: Suggested routes for the acquisition of Qualifications*

This section records all the possible routes (education, initial and continuing vocational training, work experience, formal conditions for exercising the profession and/or specialty), namely the ways, means and procedures that can be followed to achieve the acquisition of necessary requirements to a profession and/or specialty. The pairing, complementarity and recognition of the outputs between the different systems of education and/or training are also recorded<sup>134</sup>.

During the procedure of determining the standards of knowledge, skills and competences required in the framework of a professional function, a prerequisite is their pairing and classification in the international classification system of education systems ISCED (International Standard Classification of Education). In particular,

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<sup>134</sup> FEK566, ed. B, 8.5.2006 on Job Profiles



the analysis of professional functions regardless of the job specifications determination methodology that is followed in each case, should be characterized by a single structure that comprises: the title of professional function, which refers to the outcome which an employee is expected to achieve in the context of a specific profession; the professional response criteria which illustrate those critical points/indicators based on which it is judged whether a worker effectively meets the specific professional function; the description of the implementation range, which reflects the conditions for the practice of a specific professional function, the required knowledge, skills and competences.

The title of professional function in conjunction with the professional response criteria and the analysis of implementation range constitute a complete presentation of the prerequisites of a professional activity, as they should be described in the context of a job profile.

The term "transversal skills" refers to groups of skills which do not specialize in a particular employment sector but are generally important in learning, work and social conciliations, and run more than one job profiles. As such, are indicatively reported the basic computer skills and the language acquisition. The aforementioned groups of skills can be enriched by decision of the Board of the National Accreditation Centre for Continuing Vocational Training (E.KE.PIS - Ethniko Kentro Pistopiisis Sinehizomenis Epagelmatikis Katartisis), taking into consideration the tendencies as reflected each time in the labour market<sup>135</sup>. Transversal Skills do not refer to job profiles, however, their analysis and development is made with the philosophy of "prerequisites". Their content is developed in general, basic and specific by level: knowledge, skills and competences. What is more, only Universities, Research and/or Scientific Bodies, Consulting Firms with object/specialization/major involvement in the development of human resources have the right to develop their content.

Authorized to develop a job profile are the cooperating bodies in which should necessarily be represented the tertiary representative organizations of employers and employees that jointly sign the National General Collective Labour Agreement (EGSSE) in which the suggested job profile is included. If a specific

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<sup>135</sup> FEK566, ed. B, 8.5.2006 on Job Profiles

profession is not represented at tertiary level, in the shape of such cooperation, a representative body of that profession and/or specialty and/or sector should be included. The cooperating bodies should develop the job profile during the stages of "Title and definition of Profession and/or Specialty", "Analysis of the profession and/or specialty - specifications", and proposals should be submitted for the other three stages ("Required Knowledge, Skills and Competences", "Suggested itineraries" and "Indicative Methods of Assessment of Knowledge, Skills and Competences").

### **3.7 Employment Prospects**

Compared to graduates of Lyceum, TEE graduates had higher degree of integration into employment, higher employment rate and lower unemployment rate. Integration in the labour market appears to be related to three factors: a) their early involvement in the labour market, b) the field of education they chose and c) their gender. Those who were employed during their studies acceded faster the labour market. Among the employed students, those who were trained in fields such as "Chemical Laboratory Applications", "Mechanical Engineers" and "Electricians" had better chances, while the lowest involvement in employment had those of the Maritime field. What is more, among the graduates of this field, girls had lower employment rates (72%) than the boys (84.3%), while, from those who were not employed during their studies, the best employment settlement had students from the field of "Goldsmith and Watchmaking" and the worst from the field of "Agriculture, Food and Environment" (86.3% and 49.7% respectively)<sup>136</sup>.

In the long run, Higher Education Degree holders appear to have higher employment rates and better prospects in the labour market. This leads many young people to choose an educational path which offers better conditions for their access to Higher Education and employment. In fact, it appears that there is no linear relation between low youth unemployment rate and high youth participation in vocational and technical training rate. In addition to this, University education is far and away the most attractive route for the entry into the labour market, at least in the last ten years. Both in Greece and in other European countries the employment rate

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<sup>136</sup> Ministry of Education, Lifelong Learning and Religious Affairs, 2008

of Higher Education graduates remains consistently higher than that of Secondary Education graduates, although since 2008, there is a decline, which is however lower than that recorded for the Secondary Education graduates<sup>137</sup>.

### **3.8 Cooperation of Social Partners and Role of Enterprises**

In Greece, over the past decade, there have been numerous attempts of synergy among the social partners under European projects (i.e. job profiles), European initiatives (Equal, Progress), as well as networks such as ESEEKA (National System for the Connection of Vocational Education and Training to Employment), and more recently, the Lifelong Learning Council. However, in most cases, these schemes either are dissolved or their function debilitates on the completion of each programme<sup>138</sup>.

Law 4186/2013 on the regulation of vocational training encourages the involvement of social partners through proposals they are invited to submit on the specialties provided by Vocational schools. However, it is not specified how this will be achieved, through what process and what the contribution of each partner will be. This maintains the effective participation of social partners in vocational education and training uncertain and unstable. However, a systematic cooperation can not be the outcome of a hasty agreement. It requires a long-term, institutionalized dialogue among all stakeholders, in order to achieve the best possible skills and jobs supply and demand matching.

In Greece, the question as to who pays the education and training of apprentices and employees constitutes a point of friction, especially for small and micro enterprises. At a time when negative indicators are prevalent in the economic development, as it is currently happening in Greece, entrepreneurs are less willing to offer apprenticeships and negative to undertake any relevant expenditure. Employers are not interested in investing in new human resources, at least to an extent that would have substantial effects on youth unemployment, let alone paying a part of apprenticeship implementation costs. For the time being, the costs for

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<sup>137</sup>Paidoussi Chrysa, *Dual vocational education system: The German "narration" for linking education to employment in Greece*, Athens (National Institute of Employment and Human Resources), February 2014, 46

<sup>138</sup>op. cit., 50

apprenticeships derive from EU funds. Apprenticeships of OAED's EPAS schools are funded by the Operational Programme "Education and Lifelong Learning 2007-2013"<sup>139</sup>. However, this aspect is particularly important, not only for the entrepreneurs to engage in the direction of co-funding, but especially for the sustainability of the project and the recognition of the role that training plays to a healthy and growing enterprise.

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<sup>139</sup>Paidoussi Chrysa, *Dual vocational education system: The German "narration" for linking education to employment in Greece*, Athens (National Institute of Employment and Human Resources), February 2014, 52

## CONCLUSION

In several EU countries, including Greece, the study of vocational training is not a constituent element of policy making in this field. In other countries, such as Germany, there is a well developed and institutionalized research on vocational education and training. A representative example of it is the Federal Institute for Vocational Education and Training (BIBB) and the national network of research centers which studies different aspects of the system and supports its innovation and continuous improvement. The Federal Institute is actively involved in the planning and proposals level of the network of social partners that develop the dual vocational education and training system in Germany.

In Greece, most of the studies conducted on vocational education and training are fragmentary and included in EU projects deliverables. As a consequence, they are little or not at all utilized by the competent authorities since they do not form part of a permanent mechanism for research, monitoring and study of the field of vocational education and training. The insufficient and fragmented scientific support influences the course of any effort for reforms and partial change in this field. For instance, the implementation of the dual system in Greece, without an appropriate and systematic scientific support and study of the peculiarities embodied in transferring a specific system from one environment to another, may result in fatal distortions and failure.

The connection of youth education, general and vocational, with the production needs and conditions of the country is not an easy, self-explanatory or even accepted objective by everyone. However, on the occasion of a critical national and European problem, that of youth unemployment, the connection between labour market and education became more topical than ever. In fact, in order to achieve it, the German-inspired Dual system of vocational education and training has been preceded as the most suitable to cope with youth unemployment and to bridge in due time the gap between education and employment.

In the present study we attempted to approach dual educational system as well as the important issues that arise from its implementation in the Greek context. This approach revealed several findings which are outlined below.

Dual Educational system has been implemented in both in Germany and Greece for several decades now. In Germany the long-term systematic implementation period was accompanied by political consensus, strong institutional framework, expanded and institutionalized co-operations from the whole range of stakeholders, strong scientific support, and recognition of vocational education and training as a qualification for an enterprise and necessary for the entry and advancement in the labour market. What is more, the acceptance of the system is due to the market structure, particularly in industries and large enterprises which need qualified personnel and can afford the costs of it. In a discussion that we had with the Professor Matthias Knuth on June 18, 2015 in Berlin, he stated that "the key to success of the German dual system is the social consciousness and the will of entrepreneurs to get involved in it". He also expresses his concern regarding job profiles. Specifically, he believes that broad job profiles can put at risk the interest of enterprises because they are unable to offer what has been described in them<sup>140</sup>.

On the other hand, in Greece, the implementation of apprenticeship often changed direction, names and institutional framework, it firmly remained a central government affair with little and fragmentary apertures to the market, and it did not have a stable, timeless scientific support. The non-recognition of training and lifelong learning in general, as an important advantage for entrepreneurship and professional path for a person, stigmatized vocational training as degraded comparing to the general education. This is reflected on the one hand in that entrepreneurs do not participate in the cost of apprenticeship (it is funded by European Central Bank), and on the other hand in that the number of young people undergoing such training is overwhelmingly lower than those in general education and they tend to a continuous decline. In Greece, where micro family enterprises dominate, the margins for new recruitment, its development and its costs are extremely limited to minimal. The executive manager of IME/GSEVEE<sup>141</sup> confirms in a discussion we had on May 27, 2015 at IME/GSEVEE offices in Athens that

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<sup>140</sup> Matthias Knuth is Professor at the University of Duisburg-Essen. He is specialized in social policy and qualitative and quantitative social research, and he has published a variety of texts on this topics.

<sup>141</sup> Paraskevas Lintzeris is the Executive Manager of IME/GSEVEE. He co-ordinates projects on the acquisition of knowledge and skills of human resources. He has published texts in the fields of Lifelong Learning, adult education theories and vocational training and qualification accreditation policies.

vocational education and training play a dismissive role for students who do not perform good at secondary education. What is more, he corroborates the assertions that entrepreneurs are not willing to invest neither time nor money in order to create apprenticeship places.

In both countries, Higher Education graduates have much better employment rates than graduates of Secondary Education. However, it does not appear to be any liner relation between vocational training and the increase of youth employment. This is related much more to the financial soundness of the country, rather than the percentages of young people in vocational education and training, which is rather expected since apprenticeship and employment are in a sound and optimistic business environment. In an environment with negative indicators and inauspicious economic forecasts, such that in Greece, enterprises tend to shrink, or at best, to keep their human resources and to not receive new. Consequently, the question as to whether its implementation can be possible during the current period in Greece arises. In both countries, the reduction of the percentages of students in vocational education has not been accompanied by an increase in school dropouts. In Greece school dropout declined alongside the increase in the percentage of students in general upper secondary education.

The Dual education system hence can not be considered a panacea for tackling youth unemployment and succeed in an economy which is in the midst of recession. The creation of new job positions, the recovery of entrepreneurship with the reconstruction of the economy of the country are a prerequisite for any policy of youth employment growth, as well as the determining of the demands for skills and qualified personnel. The perspective of vocational education and training can not be seen alone from the overall objectives of the country's educational system.

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## **Apprenticeship Programmes in Greece**

Georgia Sotiropoulou

### **ABSTRACT**

The aim of this study is to present and analyze how apprenticeship programmes can serve as social policy methods. In particular, we try to present the types of apprenticeship, vocational education and training as well as the policies that have been undertaken in European Level, as an introduction to the topic of apprenticeship. We put special emphasis in the Greek case, attempting to explain if and how apprenticeship programmes benefit the society, economy and the people who participate in it.

We conclude that, although the Greek apprenticeship system is based on the German, they differ in their implementation. The main reason is that each country faces a variety of different socioeconomic conditions.

*Keywords:*

Apprenticeship, Vocational Education and Training, School-to-work transition, Dual System of Education

## ΠΕΡΙΛΗΨΗ

Στόχος αυτής της εργασίας είναι να παρουσιάσει και να αναλύσει πώς τα προγράμματα μαθητείας μπορούν να χρησιμεύσουν ως μέθοδοι κοινωνικής πολιτικής. Συγκεκριμένα, προσπαθούμε να παρουσιάσουμε τους τύπους της μαθητείας, την επαγγελματική εκπαίδευση και κατάρτιση, καθώς επίσης και τις πολιτικές που έχουν ληφθεί σε Ευρωπαϊκό Επίπεδο, εισάγοντας τον αναγνώστη στο θέμα της μαθητείας. Δίνουμε ιδιαίτερη έμφαση στην περίπτωση της Ελλάδας, προσπαθώντας να εξηγήσουμε εάν και πώς τα προγράμματα μαθητείας ωφελούν τόσο την κοινωνία και την οικονομία γενικότερα όσο και τους ανθρώπους που συμμετέχουν σε αυτά.

Συμπεραίνουμε ότι, αν και το ελληνικό σύστημα μαθητείας σχεδιάστηκε με βάση το γερμανικό, στην εφαρμογή του διαφέρει πολύ από αυτό. Ο κυριότερος λόγος είναι ότι κάθε μια από αυτές τις χώρες αντιμετωπίζει μια πληθώρα διαφορετικών κοινωνικοοικονομικών συνθηκών.

*Λέξεις-κλειδιά:*

Μαθητεία, Επαγγελματική εκπαίδευση και κατάρτιση, Μετάβαση από το σχολείο στην εργασία, Δυϊκό Σύστημα Εκπαίδευσης