

The changing nature and role of vocational education and training in Europe

WORK ASSIGNMENT 2

External factors influencing VET - Understanding the National Policy

Dimension: Country Case Studies

AO/DSI/JP/Changing_Role_of_Vet/009/15

Case study focusing on Greece

prepared for CEDEFOP – European Centre for the Development of Vocational Training

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The changing nature and role of vocational education and training – overall aims

The purpose of the Changing nature and role of VET-project is to improve our understanding of how VET is changing in the countries belonging to the European Union (as well as Iceland and Norway). Over a three-year period (2016-18) the project will analyse how vocationally oriented education and training has changed in the past two decades (1995-2015) and based on these results investigate the main challenges and opportunities facing the sector today and in the future. Work is divided into six separate but interlinked themes:

- (a) the changing definition and conceptualisation of VET;
- (b) the external drivers influencing VET developments;
- (c) the role of traditional VET at upper secondary level;
- (d) VET from a lifelong learning perspective;
- (e) the role of VET at higher education levels;
- (f) scenarios outlining alternative development paths for European VET in the 21st century.

The study takes as its starting point that vocationally oriented education and training is something more than the traditional VET delivered at upper secondary level (in the form of school-based education or training, apprenticeships, or combinations of these). Due to the requirements of lifelong learning, we are able to observe diversification of VET with new institutions and stakeholders involved. We also see an expansion of VET to higher education areas, partly through reform of existing institutions, partly through the emergence of new institutions. This has been caused by factors internal to the education and training system as well as by external pressures linked to demographic, technological and economic changes.

This particular case study, together with 9 other case studies, provides input to theme (b) of the project ('The external drivers influencing VET developments').

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Greece

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I. Introduction

The VET system in Greece has been largely influenced by EU relevant policies and developed with the support of respective European funding. It is characterised by frequent and regular legislation reflecting the political decisions adopted to meet EU priorities in the field of VET. In this context, VET in Greece has been conceptualised through the two different subsystems of initial vocational training and continuing vocational training, which have been related since the enactment of Law 3879/2010 under the lifelong learning perspective. While initial vocational training seems to have been better organised due to the historical development of technical and vocational education in Greece and the official recognition of certificates, continuing vocational training has not been developed in an organised and coordinated manner that could lead to qualifications correlated to levels of the national qualifications framework. This explains the dominating position of the initial vocational training in the preferences of young people and the re-emergence of the importance of apprenticeships and work-based training programs within Law 4186/2013 for their professional rehabilitation.

VET, however, remains the second choice for most young people due to the strong demand for general education and university studies and the contempt for technical and manual work. Although several reforms have been encountered in the content and the targeting of the institutional framework of VET to improve the coordination functions of VET systems and their link to employment, policy choices have not been based and responded to the productive activity in Greece and labour market needs. As a result, the absence of an integrated VET policy clearly related with the jobs offered in the Greek labour market has led vocational training programmes to act as a substitute of the employment policy. Currently, the debate on the role of vocational education and training is being renewed in view of its contribution to the fight against unemployment, and notably youth unemployment, as well as it being able to respond to the increased demands of social protection generated by the crisis. New elements have been introduced in this debate concerning the strengthening of the social role of VET, the importance of technology and innovation, and the necessary redefinition of all types and forms of academic and vocational specialisation to limit emigration flows of highly educated individuals.

2. What is meant by VET and the national VET system

The VET system in Greece has been based on the two subsystems of initial vocational training and continuing vocational training, which were treated separately by the national legislation for several years since 1992 until 2010. The legal framework for the provision of VET in Greece is set by different laws defining and regulating separately initial vocational training and continuing vocational training. Hence, the enlargement of the concept of VET with different policy priorities and custom targeting has affected policies and institutional structures in Greece. For instance, Laws 2009/1992 and 3191/2003 regulating initial vocational training were focused on the establishment of a National System for Vocational Education and Training and a National System for Linking Vocational Education and Training to Employment. On the other side, Laws 2294/1994 and 2434/1996, regulating continuing vocational training were focused on work related issues, implementation of training programmes for employed and unemployed people, accreditation of vocational training centres, and

establishment of a special account for Employment and Vocational Training as a source of private funding for training.¹

Since the enactment of Law 3879/2010 on Lifelong Learning, these two components of VET, initial and continuing vocational training, have been treated in the framework of the national holistic strategy on lifelong learning. Within Law 3879/2010, a serious attempt has been made to relate all forms of vocational education and training under the lifelong learning perspective by identifying alternative paths, networking lifelong learning institutions, and ensuring transparency and quality to achieve the interconnection of lifelong learning to employment.² That said, the term VET is mostly defined through the provision of distinct definitions of “initial vocational training” and “continuing vocational training”, “formal education” and “non-formal education” placed under the lifelong learning perspective and the relevant national strategy.

According to the definitions of Law 3879/2010, initial vocational training provides basic professional knowledge, abilities and skills in specialised disciplines for the integration, reintegration, vocational mobility and the advancement of human resources in the labour market, while continuing vocational training complements, updates or upgrades knowledge, abilities and skills, gained from the vocational education systems and initial vocational training, or professional experience for the integration or reintegration in the labour market, ensuring employment and the professional and personal development. Moreover, formal education leads to the acquisition of certificates recognised nationally by public authorities, and is part of the scheduled education range, including general adult formal education. Non-formal education is provided in an organised framework outside the formal education system, which can lead to nationally recognised qualifications and includes initial vocational training, continuous vocational training, and adult education.³

Another major review of the system under the lifelong learning perspective has been initiated with Law 4186/2013 on secondary education, which aims to ensure the modernisation of VET and strengthen its work-based component by focusing on initial vocational education within the formal education system and apprenticeships.⁴ In the same direction, the Memorandum of Understanding for a three-year ESM programme and the relevant Law 4336/2015 provide specific requirements for the modernisation and expansion of VET and the increase of apprenticeships, which include the legislation of a modern quality framework for VET and apprenticeships, the establishment of a system to identify skills needs and a process for upgrading programmes and accreditation, the provision of an integrated implementation plan of apprenticeships and a greater use of private financing through public-private partnerships.⁵ Additionally, the National Strategic Framework for VET prescribes the vision for upgrading VET structured in three pillars: (i) strengthening the social role of VET in order

¹ Ministry of Education and Religious Affairs, Organisation for Vocational Education and Training - OEEK (2008). Greece. Overview of the Vocational Education and Training System. CEDEFOP – RerferNet Greece.

² Law 3879/2010 Development of Lifelong Learning and other provisions, Official Government Gazette No. 163/21.9.2010, available at the website of the General Secretariat for Lifelong Learning <http://www.gsae.edu.gr/en/>.

³ Article 2 "Definitions" of Law 3879/2010 Development of Lifelong Learning and other provisions, Official Government Gazette No. 163/21.9.2010.

⁴ Law 4186/2013 Restructuring of secondary education and other provision, Official Government Gazette No. 193/17.9.2013.

⁵ Memorandum of Understanding between the European Commission (acting on behalf of the European stability mechanism), the Hellenic Republic and the Bank of Greece for a three-year ESM programme for Greece, 19 August 2015. Also, Law 4336/2015 Pension provisions - Ratification of Schedule Contract Financial Assistance from the European Stability Mechanism and arrangements for the implementation of the Funding Agreement, Official Government Gazette No. A 94/14.8.2015.

to reduce social inequalities, (ii) enhancing the working role of VET and (iii) linking VET with the overall development planning of the country.⁶

According to the new Law 4186/2013, there are two options in the general upper secondary education:

1. initial vocational education within the formal education system in the second cycle of secondary education at Vocational Upper Secondary Schools (EPAL) and Vocational Schools (EPAS) of the Manpower Employment Organisation (OAED) for young people aged 16-23 years, who have graduated either from the first cycle of secondary education to attend EPAL or from the 1st Grade of Upper-Secondary Education to attend EPAS; and
2. initial vocational training outside the formal education system in vocational training schools (SEK) for young graduates of compulsory education, vocational training institutes (IEK) for young graduates of secondary schools and vocational training schools, as well as lifelong learning centres and colleges for unemployed graduates of higher education up to 29 years old or unemployed 18 - 29 years old.⁷

A dominating position is reserved to initial vocational education (IVET) because either it leads to the acquisition of nationally recognised certificates by public authorities in the case of initial vocational education within the formal education system in the second cycle of secondary education at EPAL and EPAS, or it leads to a post-secondary VET diploma at EQF level 5, after completing the procedure of accreditation of their qualifications, for graduates of “Apprenticeship Year” of EPAL post-secondary studies and graduates of vocational training institutes (IEK). On the contrary, qualifications acquired through continuing vocational training (CVET) is provided by lifelong learning centres and by most universities, but the qualifications are not correlated with levels of the national qualifications framework. In fact, during the 1980s and 1990s the interest has been oriented to continuing vocational training and learning in the framework of the relevant EU policies, but not in an organised and coordinated manner. It appears that, in formal vocational education, the regulation and operation of Vocational Upper Secondary Schools (EPAL) and Vocational Schools (EPAS) of the Manpower Employment Organisation (OAED) function well with satisfactory absorption rates of graduates in the labour market, while the operating and supervisory framework of Lifelong Learning Centres has not yet been configured and the accreditation system of continuing vocational training remains at the level of the general requirement of Law 4283/2014.

Overall, VET in Greece is conceptualised through the two different sub-systems of initial vocational training and continuing vocational training, equivalent, complementary and closely related under the lifelong learning perspective. Largely influenced by the EU policy in VET, the conceptions of IVET and CVET follow the respective legal provisions, reserving a dominating position to IVET because of the official recognition of certificates or at least their correspondence to the EQF / NQF. As a result, the definition of VET corresponds to what is generally understood by the public. But VET does not appear attractive to young people as it is related to “inferior” manual labour. Greek society has always been characterised by a strong demand for general education and university studies, which are associated with expectations of improved social standing. The efforts made by the authorities to

⁶ Ministry of Education, Research and Religion (2016). National Strategic Framework for upgrading Vocational Education and Training and Apprenticeships (in Greek), available at: https://minedu.gov.gr/publications/docs2016/Στρατηγικό_Πλαίσιο_EEK.pdf.

⁷ CEDEFOP (2014). *Vocational education and training in Greece, Short description*. Luxembourg: Publications Office of the European Union.

present vocational education as an alternative of equal value with general education didn't affect young people attitude. Therefore, VET remains the second choice for most young people.⁸

3. The historical development of VET in Greece

Much of the policy concerns were related to the malfunctions and weaknesses of the VET system in Greece due to the rapid development of the system on the basis of EU funding rather than market needs, the fragmented nature of measures and the absence of an integrated policy, coordination of activities and certification of professional qualifications. These shortcomings can explain the lack of a coherent conception and strategy for lifelong learning in Greece, as well as the complementary function of continuing training in relation to insufficient initial vocational training. There have been, however, significant efforts to relate vocational training to labour market needs through the creation of organisations and institutions that ensure the participation of social partners, the research and documentation of training and employment policies, and the statistical documentation and monitoring of labour market trends. The most recent efforts consist in the formation of institutional coordination functions of VET systems and their link to employment, as well as in the systematisation of existing VET systems as part of an overall strategy for lifelong learning.⁹

Although the concept of technical and vocational education in Greece is very old and dates back to the creation of the independent Greek state, there have been several reforms in the content and the targeting of the institutional framework of VET. Since the 19th century, the debate on the orientation of the education led to the creation of two main pillars: (a) the general vocational education and (b) the technical vocational education in order to ensure the adaptation of the education to the changing economic, political and social needs. The productive activity in Greece during the 1870s was based on small craft enterprise and, thus, the goal of technical education focused mainly on its adaptation to European relevant standards and the constant belief that agricultural, commercial, and maritime education will ensure the economic prosperity in Greece. Yet, the perception for the classical value of the education and the contempt for technical and manual work have highlighted general education as the dominant one. The demand for gymnasium studies and studies leading to commercial schools and universities was clear during the 1920s: the aim being to ensure social and professional status. Law 4397/1929 for elementary education confirms the distinction between general education and schools of vocational education aiming to support the professional preparation of graduates of elementary education who did not want to continue to secondary and higher education.¹⁰

The conception of Vocational Education and Training in Greece was developed in the 1960s with the guidance and assistance of international organisations (i.e. the OECD, World Bank, and European Community) to help meet the immediate needs of a new, growing industry with demand for skilled labour. In this context, various types and forms of vocational education and training were created, among which Technical Vocational Education was dominant. The first major educational reform took place in 1957 in trying to provide new perspectives to the technical and vocational education through the creation of vocational schools in 1958 and ensuring access to vocational schools to acquire the

⁸ CEDEFOP (2014). *Vocational education and training in Greece, Short description*. Luxembourg: Publications Office of the European Union, p. 17.

⁹ Galata, P.V. (2009). *The Accreditation of Vocational Qualifications and the Collective Labour Agreements*. Athens-Thessaloniki: Editions Sakkoula (in Greek), pp. 48-49.

¹⁰ Karatzogiannis, S., Pantazi, S., (2014). *The vocational education and training in Greece. Weaknesses, possibilities and perspectives*. Athens: Small Enterprises' Institute of the Hellenic Confederation of Professionals, Craftsmen and Merchants - IME GSEVEE (in Greek), pp. 85-89.

relevant qualifications for the graduates who did not want continue to secondary education.¹¹ The second major educational reform was undertaken with Law 576/1977 (Gov. Gazette 102 A/13.4.1977), which attempted to completely redraw the field of technical and vocational education in the country with its distinction on upper-secondary and post-secondary education. Following this distinction, the upper-secondary education was covered by Technical Vocational Schools (TES) and Technical and Vocational Lyceum (TEL), while the post-secondary education was to be provided by Higher Technical and Vocational Schools (ATES). Furthermore, Law 1346/1983 (Gov. Gazette. 46 A/14.04.1983) established the educational apprenticeship units of the Manpower Employment Organisation (OAED) and within the Law 1566/1985 (Gov. Gazette 167 A/ 30.9.1985), OAED's apprenticeship schools belonged in secondary education and the degrees granted were equivalent to those awarded by the Technical Vocational Schools (TES).¹²

The third significant reform of secondary education occurred at the end of the 1990s with Law 2525/1997 (Gov. Gazette 188 A/23.9.1997) and Law 2640/1998 (Gov. Gazette 206 A/03.09.1998), which established the *Unified Lyceum* including all types of general and vocational lyceum and the *Technical Vocational Schools (TEE)* that belong to post-secondary education and lead, after exams, to Diploma Level 2 for graduates of the First Cycle Studies and to Degree Level 3 for graduates of Second Cycle Studies, according to Law 2009/1992 (Gov. Gazette 18 A/ 14.02.1992). The last principal change concerns Technical Vocational Schools that have been replaced by the Vocational Lyceum (EPAL) and Vocational Schools (EPAS) with the enactment of Law 3475/2006 (Gov. Gazette 146/A/13.07.2006) in order to combine general education in the second cycle of secondary education with the technical and professional knowledge.¹³ Despite all reforms trying to place Technical and Vocational Training as an equal alternative to the General Lyceum, in practice and in the general consciousness, technical education has been considered as inferior to general education.¹⁴

The most recent legislative activity was influenced by the EU's post-2000 emphasis on creating a competitive Europe that can meet the new challenges of the knowledge-based society. Since 2000, four laws – on the national system linking VET with employment (Law 3191/2003), systematising lifelong learning (Law 3369/2005), developing lifelong learning (Law 3879/2010), and restructuring secondary education (Law 4186/2013) – have been enacted to regulate the domain of VET and lifelong learning.¹⁵ As already mentioned, Law 4186/2013 aims to modernise secondary vocational education and strengthen its work-based learning elements. In particular it is foreseen that Schools of Vocational Training (SEK) provide non-formal initial vocational training to graduates of compulsory education and, for the first time, there will be the possibility of post-secondary level apprenticeship ("Apprenticeship Class").¹⁶ It also allows post-secondary VET providers (IEK) to offer similar programmes to apprenticeships and practical training in several specialities. The modernisation of vocational education and training is reinforced with specific requirements provided by Law 4336/2015

¹¹ Ministerial Act 1035/20.12.1958 and Legal Decree 3971/02.09.1959, Official Government Gazette No. 187 A/ 07.09.1959.

¹² Manpower Employment Organisation - OAED (2015). Support of Implementation Actions of Upgrading Apprenticeship of OAED. Apprenticeship of OAED: trends, developments, perspectives, the reform of apprenticeship. Expertise Consultancy. November 2015 (in Greek), pp. 8-11.

¹³ Manpower Employment Organisation - OAED (2015), *idem*; Foundation for Economic & Industrial Research (2015). Apprenticeship systems in Greece and Europe and their financial dimension. Terms, conditions, working scenarios for wider participation of private sector. Athens, June 2015 (in Greek), pp. 31-37.

¹⁴ Karatzogiannis, S., Pantazi, S. (2014), *idem*, p. 93.

¹⁵ CEDEFOP (2014). Vocational education and training in Greece, Short description. Luxembourg: Publications Office of the European Union.

¹⁶ Manpower Employment Organisation - OAED (2015), *idem*, pp. 11-12.

to establish a modern quality framework for VET and apprenticeships, the identification system of skills needs, a process for upgrading programmes and accreditation, a closer involvement of employers and a greater use of private financing.¹⁷ It is obvious that high youth unemployment rates put apprenticeships under the spotlight of policy priorities and developments in Greece and the increase of apprenticeships for 2014-2020 is a priority against youth unemployment. Other types of workplace learning are also taken into consideration in developing a national framework for apprenticeships.

On the other hand, the legislation of apprenticeship within Law 4186/2013 has been largely criticised as being inadequate due to the insufficient funding and the absence of modern work-based training programmes. Thus, apprenticeships are not treated as an educational policy and has transformed in to a latent employment policy. Another negative factor relating to the effectiveness of VET and apprenticeship lies in the general approach that regards unemployment as being is due to the mismatch between the supply and demand of skills, or to the lack of appropriate skills; while the policy discussion should start from the type, quantity, and quality of jobs offered in the Greek labour market. Finally, it should be taken into consideration that policy decisions are directed by EU funding to support EU policies in the field of VET, which does not always respond adequately to the needs of the labour market in Greece.¹⁸

As far as continuing vocational training concerned, policy options in Greece were oriented and supported in the framework of the relevant EU policies, but not in an organised and coordinated manner. The legislative over-activity observed in the field is explained by the effort of the State to control the development of the respective market characterised by conflicting interests and European pressures.

The current debate on the role of vocational education and training is being renewed in view of its contribution to fight against unemployment, and notably youth unemployment, as well as to respond to the increased demands of social protection generated by the crisis. In the case of Greece, the limited fiscal capacity of the country along with the existing structural weaknesses of the economy and the welfare state has resulted in the government having limited room to manoeuvre.¹⁹

4. Changes in VET Enrolment

The capturing of adult participation rates in educational and training activities in Greece over time constitutes one of the hardest tasks, as there several discontinuities. During the 1980s, within the first input of European funding resources, an increase in the number of participations in learning activities was recorded. According to available data in 1991, up to 6% of the working population participated in training activities financed by the European Social Fund. During the period 2000-2006 the adult participation rates in lifelong learning activities in Greece were particularly low and ranged from 1.0% to 2.3%, compared with 7.1% to 9.7%, respectively, in the EU.²⁰ Adult participation in lifelong learning remains at a low a rate of 3.0% in 2014, compared with an EU average of 10.7%.

¹⁷ Memorandum of Understanding between the European Commission (acting on behalf of the European stability mechanism), the Hellenic Republic and the Bank of Greece for a three-year ESM programme for Greece, 19 August 2015. Also, Law 4336/2015 Pension provisions - Ratification of Schedule Contract Financial Assistance from the European Stability Mechanism and arrangements for the implementation of the Funding Agreement, Official Government Gazette No. A 94/14.8.2015.

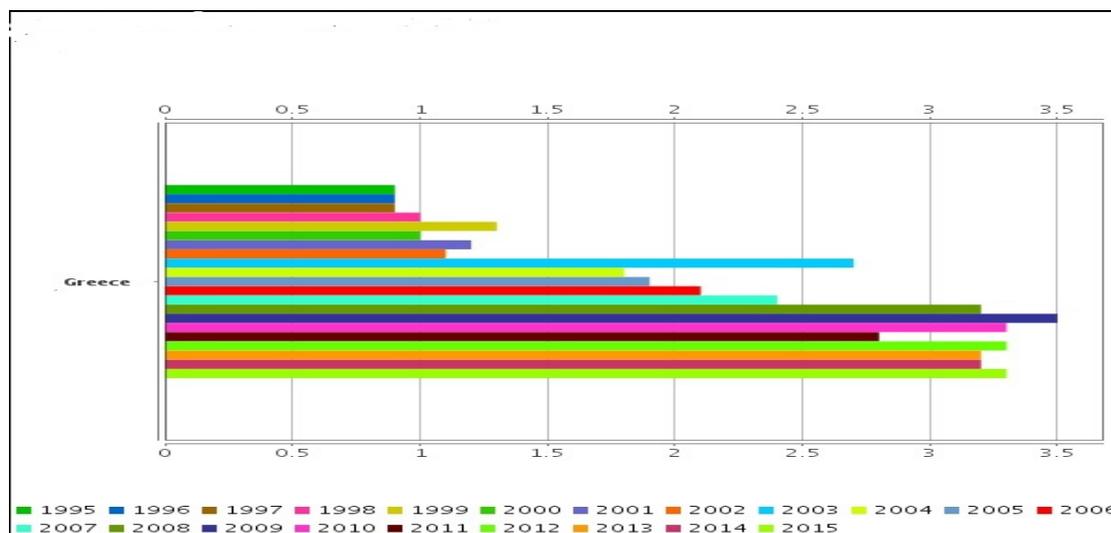
¹⁸ Karatzogiannis, S., Pantazi, S. (2014), *idem*, p. 276-285.

¹⁹ Galata, P.V. – Chrysakis, M. (2016). "Active Labour Market Policies in Greece: Challenges and Responses During the Economic Crisis", *Social Policy*, Vol. 6, June, pp. 45-66.

²⁰ Karalis, T. (2013). Incentives and obstacles for the participation of adults in lifelong education. Athens: IME GSEVEE and INE GSEE (in Greek), pp. 22-31.

Participation in adult learning, at 5.7 % in 2015, also remained low and far below the 10.7 % EU average.²¹

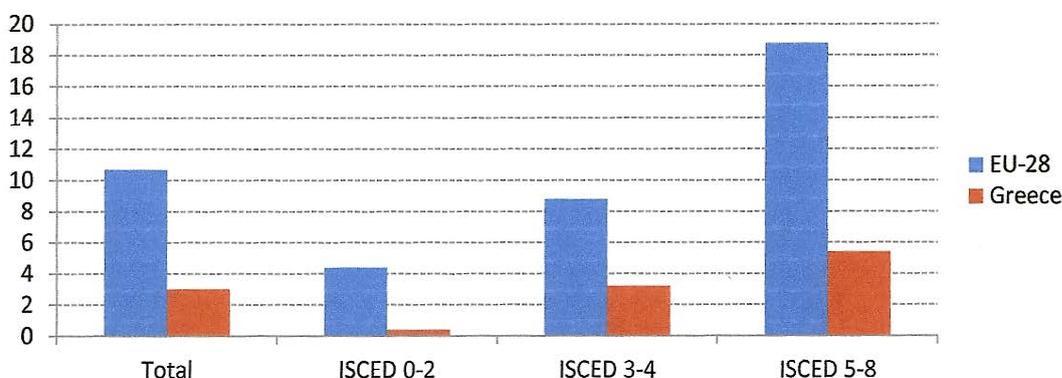
Figure 1: Adult participation in lifelong learning in Greece 2005 - 2015



Source of Data: Eurostat, 28.06.2017

Adult participation in lifelong learning includes all education or training and refers to persons aged 25 to 64 who stated that they received education or training in the four weeks preceding the survey independently of their current or future job.

Figure 2: Adult participation in lifelong learning in Greece by ISCED Level, 2014/5



Source: Eurostat

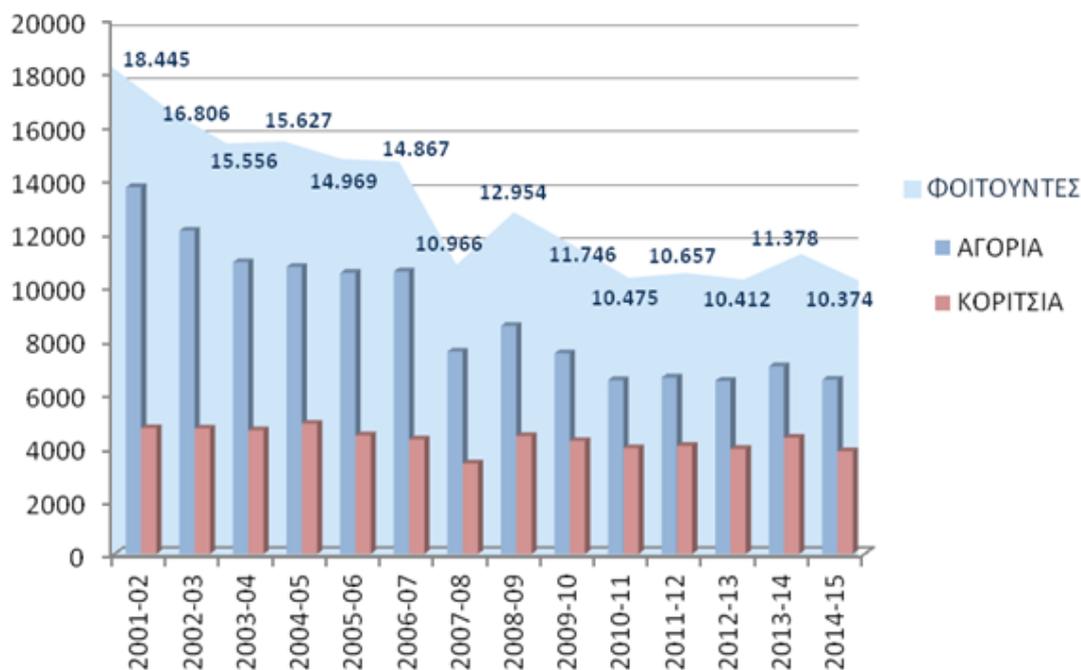
As participation in adult education is determined particularly by educational attainment, employment status, occupational category, age and skills, it appears that adults with low level or no qualifications, those in low-skilled occupations, the unemployed and economically inactive, older people and the least skilled, are less likely to participate in lifelong learning. In Greece, the lower skilled (ISCED level

²¹ European Commission (2015). Education and Training Monitor 2015 – Greece, Luxembourg: Publications Office of the European Union, p. 8. Also, European Commission (2016). Education and Training Monitor 2016 – Greece, Luxembourg: Publications Office of the European Union, p. 7.

0-2) have a participation rate of barely 0.4% in 2014, compared with the EU average of 4.4%.²² So, when comparing adult workers with low-level qualifications (ISCED 0-2) to adult workers with high-level qualifications (ISCED 5-6), an aggregate average disadvantage for the low qualified is found, which is statistically significant. Even with these exceptionally low participation rates in non-formal adult education, the probabilities of participation in job-related training are lower, by 3 percentage points, for unemployed adults (and lower by 8 percentage points for the inactive) than for employed adults. Moreover, there is a considerable disadvantage in participation for those employed in small establishments, formally low qualified and manual skilled workers.²³

The following Figure shows the yearly number of apprentices in the Vocational Education Schools of OAED (Technical Vocational Schools TEE up to year 2005-2006 and EPAS thereafter with the enactment of Law 3475/2006) from 2001-2002 to 2014-2015. The graph shows the total number of apprentices by gender (male: blue) and female (red).

Figure 3: Apprenticeship starts in Vocational Schools of OAED in Greece, 2001 to 2014



Source: Manpower Employment Organisation - OAED (2015), p. 14.

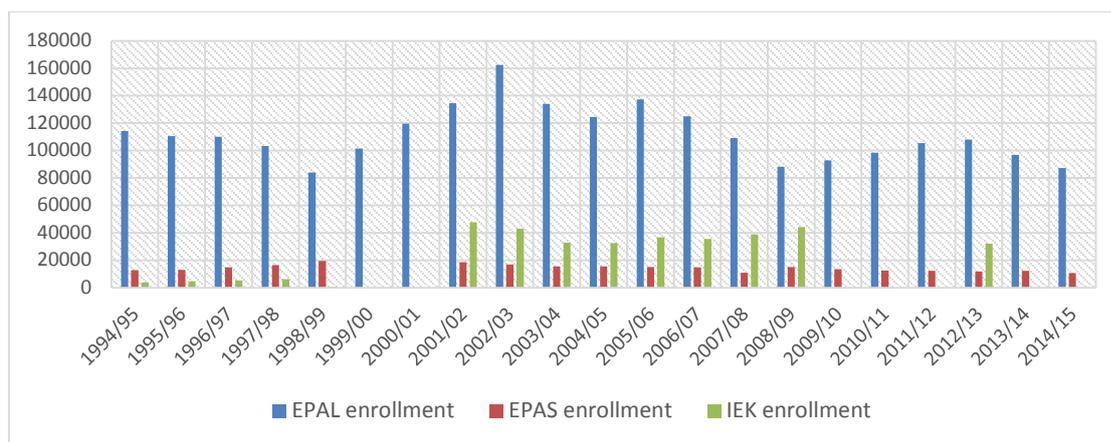
The number of apprentices in EPAS has decreased over time, but in recent years the trend has stabilised at around 10,000 apprentices a year. The decline in male students from 2001 to 2014 reached 52%, in other words 13,734 students attended the school year 2001/2 compared to 6,527 students attending in 2014/5. The decline in the participation of female students is significantly lower and reached 18% - 4,711 students attended in the school year 2001/2 compared to 3,857 students in 2014/5.²⁴

²² European Commission (2015). Education and Training Monitor 2015 – Greece, Luxembourg: Publications Office of the European Union, p. 8. Also, European Commission (2016). Education and Training Monitor 2016 – Greece, Luxembourg: Publications Office of the European Union, p. 7.

²³ Cedefop (2015). Unequal access to job-related learning: evidence from the adult education survey. Luxembourg: Publications Office of the European Union, pp. 69-70.

²⁴ Manpower Employment Organisation - OAED (2015), idem, pp. 13-14.

Figure 4: Percentage of upper secondary school in work-based programmes



Source: Official Education Statistics 1994/95-1997/98, Statistical Yearbook of Greece 1999, 2009 & 2010 and Centre for the Development of Educational Policy of GSEE (2015).²⁵

Although work-based learning is included in the programmes of vocational upper secondary schools and institutes, the above figure demonstrates clearly the preference of students for upper secondary schools within the formal education system. This leads to the acquisition of certificates recognised by public authorities and provides the possibility to take exams for access to higher education institutes or it leads to a post-secondary VET diploma at EQF level 5.

Vocational Upper Secondary Schools (EPAL) provides initial vocational education and operates within the formal education system in the second cycle of secondary education. The public vocational upper secondary schools offer the specialities that are listed in the legislation and classified by Guidance Groups. Graduates of EPAL achieving the Vocational Upper Secondary School Certificate are eligible to take the national examinations for access to higher education institutes. Law 4186/2013 has initiated the Apprenticeship Year of EPAL, which is optional and constitutes "post-secondary studies" outside the formal education system.

Vocational Schools (EPAS) of OAED enable learners to follow specialities not requiring a strong theoretical background; instead they mainly focus on practical training to help students immediately join the labour market. For each speciality, related job profiles or required occupational qualifications should be considered. The course has a duration of two years. Tertiary education programmes are not open to EPAS graduates.

Vocational Training Institutes (IEK) provide specialities that are organised in specific Guidance Groups and respective Sectors listed in the legislation. Attendance at IEK is up to five semesters in total, four of theoretical and laboratory training in the specialty, and one of practical training or apprenticeship. Students who successfully complete all the prescribed semesters are awarded a Certificate of Vocational Training. This Certificate entitles the holder to take part in vocational

²⁵ National Statistical Service of Greece (2002). Statistics of Education 1994/95-1997/98; National Statistical Service of Greece (2000). Statistical Yearbook of Greece 1999; National Statistical Service of Greece (2011). Statistical Yearbook of Greece 2009 & 2010; Centre for the Development of Educational Policy of GSEE (2015). Yearly Report on Education 2015, p. 39.

training certification examinations conducted under the jurisdiction of National Organisation for the Accreditation of Qualifications (EOPPEP), with which they acquire a postsecondary VET diploma.²⁶

Apart from the preference to EPAL and EPAS, it is observed that after the decline of enrolments in the beginning of the crisis, namely in the school year 2008/9, there is an increase of enrolments during the four-year period between 2010 and 2013 with a clear preference for vocational schools in the public sector. Concerning upper secondary vocational training outside the formal education system, provided by vocational training institutes (IEK), lifelong learning centres and colleges, there is a great instability in the field and the content of studies as well as in the participation rates of its student population. More precisely, during the period between 2001 and 2008 and according the data available from Eurostat, the student population of post-secondary non-tertiary level decreased by - 7.0%. Finally, the legislative initiatives adopted during 2011-2014 resulted in an increase of student population in the private sector and its respective decline in the public sector.²⁷

5. The interplay between external and the internal factors shaping VET

The above analysis highlighted the endogenous characteristics and main policy changes occurred during the development of the VET system in Greece. To move further in the analysis, there is a need to examine the external and internal factors that influence any policy decisions for the improvement and better functioning of the VET system in Greece in view to responding to the increased demands of adaptation and social protection generated by the crisis.

The VET system in Greece responded to technical and demographic change in a quite modest way in the period before the economic crisis. For instance, VET programmes gave priority to the integration of women in the labour market, but mainly because of the existing EU policy priorities in the field and not as a result of clearly identified needs in the national labour market. Therefore, the response of VET to labour market needs and changes is considered among the main weaknesses of the VET system, which was due to the rapid development of the system on the basis of EU funding rather than market needs, the fragmented nature of measures and the absence of an integrated policy, clearly related with the jobs offered in the Greek labour market.

The reforms introduced since 2010 show better opportunities for Greece to exploit its strong comparative advantage in certain sectors, such as in tourism, by fostering the acquisition of skills through sector-specific vocational training and relevant practical experience that may help to improve the quality of relevant services. Moreover, the demographic changes related to the migration rate and the technical changes leading to the need of investing in the highly qualified human capital seem to be seriously taken into consideration during the economic crisis. Thus, the necessary redefinition of all types and forms of academic and vocational specialisation closely related with the technology opportunities and the jobs offered in the Greek labour market is considered as a priority to ensure the effectiveness of VET policies.

The economic crisis and its colossal impact on the Greek economy and labour market has tended to focus the debate very much on how to adapt to the post-crisis situation.

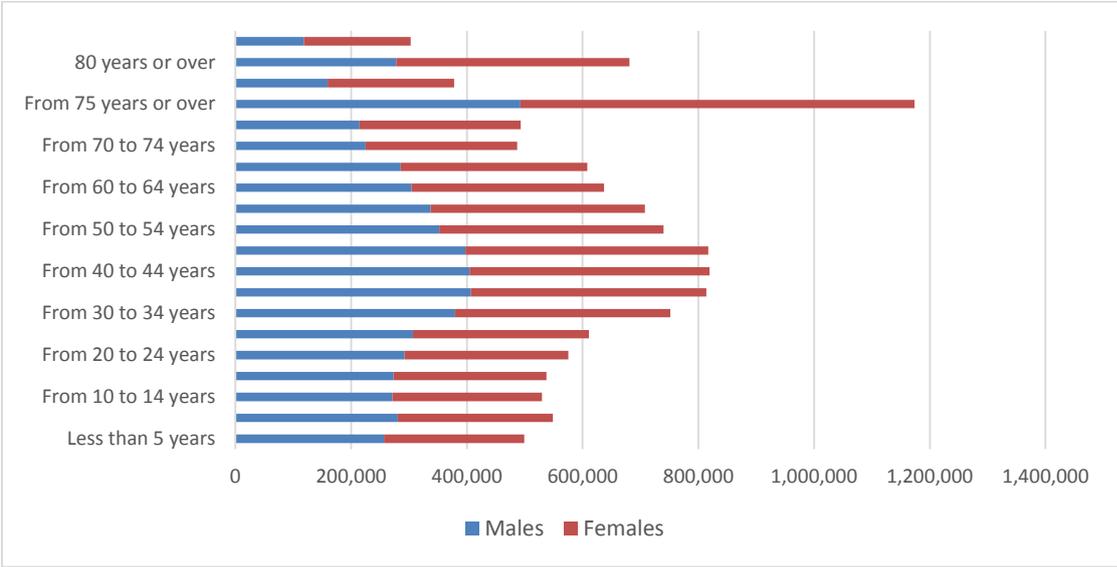
²⁶ Karantinos, D. (2014). Recent developments regarding the apprenticeship system in Greece. Paper in response to European Employment Policy Observatory Ad-hoc Request.

²⁷ Center for the Development of Educational Policy of GSEE (2015). Yearly Report on Education 2015, pp. 33-40.

Demographic change

In 2015, Greece recorded the largest negative crude net migration rates (-3.3 per 1,000 persons) along with Lithuania (-7.7), Latvia (-5.4) and Croatia (-4.3). The total population in Greece has decreased from 11,123,392 citizens in 2011 to 10,926,807 in 2014, 10,858,018 in 2015, and 10,783,748 in 2016. This decline was considered to be a result of negative net migration (although this was supplemented by a relatively low negative rate of natural population change).²⁸ Between 2005 and 2015 the median age increased in Greece by more than 4.0 years, namely from 39.2 in 2005 to 43.4 to 2015. The old age dependency ratio, which shows the relative size of the older population compared to the working age population is high up to 32.4%, which means approximately three working age people for every person aged 65 or older. Furthermore, according to the age pyramid for 2015 as shown in the figure below, it seems that the population in Greece is projected to continue to age, although 'baby boomers' continue to represent a major part of the working-age population.

Figure 5: Age structure of Greek population, in 2015



Source: Eurostat, 2016.

The 'baby boom' bulge is moving up the population pyramid, leaving the lower part of the working-age population and the base (persons aged 0–14) narrower. Thus, it seems that by 2080 the pyramid will take more the shape of a block, narrowing slightly in the middle of the pyramid (around the age 45–54 years) and considerably near the base.²⁹

The rising unemployment and the deep economic recession have caused part of Greece's human resources to migrate abroad, with alarming implications for the country's demographics, public finances, pension system and, to the extent that those who leave are highly-skilled, the quality of the remaining labour force. Therefore, specific measures are needed to: (a) redefine the types and forms of academic and vocational specialisation needed to improve skill matching for the young generations; (b) support business start-ups; (c) combat the lack of transparency and nepotism; (d) promote

²⁸ Eurostat Statistics Explained (2016). Population and population change statistics.
²⁹ Eurostat Statistics Explained (2016). Population structure and ageing.

excellence; (e) expand apprenticeship and internship schemes; and (f) foster a business-friendly environment.³⁰

The challenge facing the VET system – and the education system in general – is to encourage investments in human capital that can be captured by the Greek economy. But as noted throughout the study there is a preference for people to take the general route through the education system because this gives access to higher education. And this then potentially provides the means to leave the country to work abroad. There is now an emphasis on apprenticeships which has the potential to improve the attractiveness of the vocational education to young people.

The danger is that economic recovery could be hampered by a lack of skills (and the lack of skills may be a disincentive to investment). It is apparent that the country is investing skills anticipation via the Mechanism and this may provide the means to ensure that the country is able to better match skills supply to skills demand as the economy begins to grow.

Technological change

Skills forecasts for Greece predict that demand for high- and low-skilled workers, and to a lesser extent medium-skilled workers, will all rise in the coming years. Looking forward to 2025, the share of the labour force with high level qualifications will rise, whilst the share with medium- or low-level qualifications will decrease.³¹

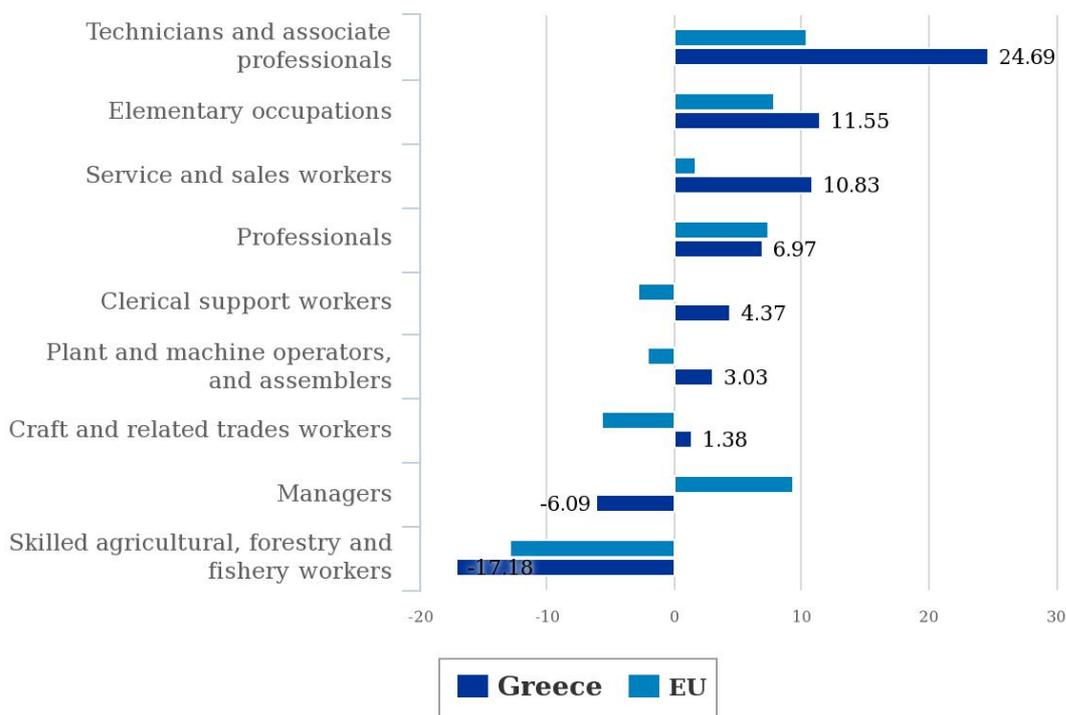
Although employment has declined across all economic activities, most of the job losses occurred in three main sectors: construction, manufacturing, and retail trade, accounting for around two-thirds of total employment destruction between late 2008 and 2013. Following the general shrinking of the public sector in recent years, job cuts in public administration, education and health together accounted for another 10 per cent of the total employment contraction. Examining job losses by occupation, shows that the bulk of employment losses have been concentrated in medium-skilled areas. In particular, between 2008 and 2013, the number of both clerical workers and plant and machine operators were reduced by more than 30 per cent. Over the same period, the number of craft workers dropped by 46 per cent, mainly as a consequence of the crisis in the construction and manufacturing sectors. To spur innovation, it is crucial that Greece increases its leveraging of the highly qualified human capital that exists in the country, while also limiting significant emigration flows of highly educated individuals by enhancing collaboration between firms and research institutions and promoting the acquisition of practical skills by young. A good opportunity for Greece is to exploit further its strong comparative advantage in tourism by fostering the acquisition of skills through sector-specific vocational training and relevant practical experience may help to improve the quality of tourism services.³²

³⁰ Bank of Greece (2016). Summary of the Annual Report 2015. Athens, February 2016, p. 17.

³¹ Cedefop, Skills Panorama, <http://skillspanorama.cedefop.europa.eu/en/countries/greece>.

³² International Labour Office, Research Department (2014). Greece: Productive jobs for Greece. Geneva: ILO, pp. 10-14, 28.

Figure 6: Future employment growth (% change) across occupations in Greece compared to EU in 2015-2025



Source: Cedefop, Skills Panorama - Greece

Fostering research, bringing about technology diffusion, and increasing entrepreneurship are the key to harnessing human capital. To this end, public policy intervention can encourage technology transfer, i.e. the commercialisation of academic and scientific research (licensing and patents), and at the same time open up career opportunities for talented young graduates. A positive step to invest on a culture of entrepreneurship and excellence is the creation of the “Hellenic Foundation for Research and Innovation (HFRI)” with the Law 4429/2016, following a finance agreement between the Hellenic Republic and the European Investment Bank that will also offer a solution to the funding problems of innovative small and medium sized enterprises.³³

Macro-economic challenges

It is worth mentioning that the Greek economy suffered significant macroeconomic changes during the period 2008-2014, recording a cumulative loss in terms of GDP that exceeded 25%. Greece continues to face a severe economic recession, which has aggravated the serious and chronic structural problems of the economy and the labour market explaining why the implications of the crisis were particularly adverse. The reforms introduced under the First and Second Economic Adjustment Programmes, agreed in May 2010 and in March 2012 respectively, affected employment protection, wage setting mechanisms and social security and led to deep wage, pension and healthcare cuts, which had a devastating impact in the labour market.³⁴

³³ Bank of Greece (2016). Summary of the Annual Report 2015. Athens, February 2016, p. 15.

³⁴ Bank of Greece (2015). Monetary Policy 2014-2015, Athens, p. 56; Bank of Greece (2014). The Chronicle of the Great Crisis: The Bank of Greece 2008-2013, Athens: Bank of Greece, Centre of Culture, Research and Documentation, pp. 42, 55.

On the other hand, one of the objectives of the Economic Adjustment Programmes undertaken by Greece was to restore international competitiveness and promote sustainable long-term growth by reducing unit labour cost. Between 2001 and 2008, labour compensation per hour worked increased by 5.3 per cent per year, while productivity – measured as GDP per hour worked at constant prices – rose by 3.3 per cent per year over the same period. As the crisis erupted, labour compensation continued to increase until 2009. Since then, a series of reforms related to the minimum wage setting and collective bargaining legislation were implemented with the aim of facilitating the adjustment process. As a result, between 2010 and 2013, unit labour cost cumulatively fell by more than 13 per cent, with wages dropping by 17 per cent. Therefore, efforts are needed to foster the productivity and innovation of firms, with a view to developing higher quality products and shifting away from the traditional economic base of Greece.³⁵

Figure 7: Productivity in Greece



Productivity remains weak in the economy and this remains a challenge for the economy.³⁶ In some respects the key issue is how to promote investment in the country which might have the impact of increasing productivity. Clearly the quality of human capital is of importance here, but is hard not to regard this as, to some extent, a second order consideration when the first order one is how to increase investment and promote growth. But as noted in the section on demographic change, unless the skills are in place to meet labour market needs, this could potentially act as a constraint or drag on growth.

It is apparent that one impact of the crisis has been to reduce the amount of public funding available for VET. Initial Vocational Education is part of upper secondary education of the Greek educational system. Thus, Vocational Schools EPAL and EPAS are funded from the state budget. Initial vocational training at post-secondary level delivered by IEKs and supervised by the Ministry of Education is funded by the money allocated to the Ministry from the national budget as well as by European funds. Although relevant data is not available, the budgetary constraints implemented due to the economic

³⁵ International Labour Office, Research Department (2014). Greece: Productive jobs for Greece. Geneva: ILO, pp. 51-61.
³⁶ Trading Economics, Greece Productivity, <https://tradingeconomics.com/greece/productivity/forecast>.

crisis will result in reducing significantly public expenditure on VET and deep concern on the part of social partners and private companies has been expressed.³⁷

6. Conclusion

The above analysis allows one to take advantage of the lessons learnt from the historical development of the VET system in Greece, as well as the demographic, economic and technological challenges that emerge in times of crisis. Despite the weaknesses in the implementation of active labour market policies in Greece and the limited fiscal capacity of the country in shaping social policy solutions, the role of VET can be attractive if long-term, coherent and well-coordinated design and implementation of policy interventions will take place in correspondence to the labour needs in this conjuncture.

Specific measures are required to improve the effectiveness of VET policies through the necessary redefinition of all types and forms of academic and vocational specialisation closely related with the technology opportunities and the jobs offered in the Greek labour market. It seems that actors in Greece are better equipped now with alternative active labour market solutions to counter social crisis. What is needed is to fully exploit other countries' experiences and to increase expenditure in favour of active labour market policies to combat unemployment and social exclusion. Despite the narrow margins of policy options, there are several challenges for promoting active labour market policies, particularly in a recession, provided that they will not substitute the fundamental guarantees of work and income replacement and that will be associated with a comprehensive policy of job creation.

There are lessons to be learnt from the past. In the period before 2010 the weaknesses of the VET system in Greece were due to the rapid development of the system on the basis of EU funding rather than market needs. This has led to policy that was oriented towards targeting EU funds, fragmented measures and absence of an integrated VET policy clearly related with the jobs offered in the Greek labour market. As a result, policy became more oriented to linking VET national system with employment and labour market needs. A major reform occurred with the enactment of Law 3879/2010 on Lifelong Learning, introducing the common treatment of the two different subsystems of initial vocational training and continuing vocational training under the national integrated strategy on lifelong learning. The second major reform with Law 4186/2013 on secondary education focused on the modernisation of VET and the strengthening of its work-based component through initial vocational education within the formal education system and apprenticeships. The modernisation of vocational education and training was reinforced with specific requirements provided by Law 4336/2015, giving priority to a modern quality framework for VET and apprenticeships, a system to identify skills needs (the Mechanism), a process for upgrading programmes and accreditation, a closer involvement of employers in the VET system, and a greater use of private financing.

To summarise, the differences observed in the Greek VET system 20 years ago with today, the following could be concluded.

- An integrated approach of the VET under lifelong perspective is promoted since 2010 against the previously segmented treatment of the two different subsystems of initial vocational training and continuing vocational training.

³⁷ European Commission/EACEA/Eurydice (2015). Adult Education and Training in Europe: Widening Access to Learning Opportunities. Eurydice Report. Luxembourg: Publications Office of the European Union, p. 117. Also, CEDEFOP ReferNet (2009). Greece. VET in Europe – Country Report.

- Greater emphasis on ensuring that VET meets labour market demand. The period before 2010 was characterised by a lack of an integrated policy and adequate responses to labour market needs.
- The current priority given to initial vocational education within the formal education system and the importance attached to apprenticeships is now much more evident.
- The fulfillment of the prerequisites for a modern and effective VET system, such as the identification system of skills needs or the process for upgrading programmes and accreditation, is now very much more evidence that it was 20 years ago.

Due to budgetary constraints, the margins of policy options are currently narrow compared to the period before the economic crisis started in Greece in 2009. The challenge is to link VET policy to job creation. This challenge was apparent even in the period before economic crisis albeit to a lesser degree than today.